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# The Commonwealth of Massachusetts.

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## FORTY-THIRD ANNUAL REPORT

OF THE

# BOARD OF RAILROAD COMMISSIONERS.

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JANUARY, 1912.



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## The Commonwealth of Massachusetts.

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### RAILROAD COMMISSIONERS.

FREDERICK J. MACLEOD, Cambridge, *Chairman*, Term expires July 1, 1912.  
GEORGE W. BISHOP, Newtonville, . . . Term expires July 1, 1913.  
CLINTON WHITE, Melrose, . . . Term expires July 1, 1911.

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CHARLES E. MANN, Malden, *Clerk*.

ALLAN BROOKS, Harvard, *Assistant Clerk*.

GEORGE F. SWAIN, Boston, *Consulting Engineer*.

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### RAILROAD INSPECTORS.

DANIEL M. WHEELER, Springfield, . . . Term expires October 1, 1912.  
LEWELLYN H. McLAIN, Melrose, . . . Term expires October 1, 1912.  
JOHN Q. HENNIGAN, East Milton, . . . Term expires October 1, 1913.  
WINFIELD L. LARRY, Boston, . . . Term expires September 1, 1913.  
HENRY W. SEWARD, Boston, . . . Term expires December 1, 1913.  
JOHN H. PARANT, Worcester, . . . Term expires January 1, 1914.  
JOHN W. OGDEN, Malden, . . . Term expires December 1, 1914.  
MICHAEL J. SCULLY, Taunton, . . . Term expires February 1, 1915.  
ARTHUR W. HODGES, Brockton, . . . Term expires February 1, 1915.  
CHARLES E. MONTGOMERY, West Medford, . . . Term expires February 1, 1915.

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OFFICE, NO. 20 BEACON STREET, BOSTON.



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# COMMISSIONERS' REPORT.

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## PART I.

RAILROAD CORPORATIONS AND STREET RAILWAY  
COMPANIES.

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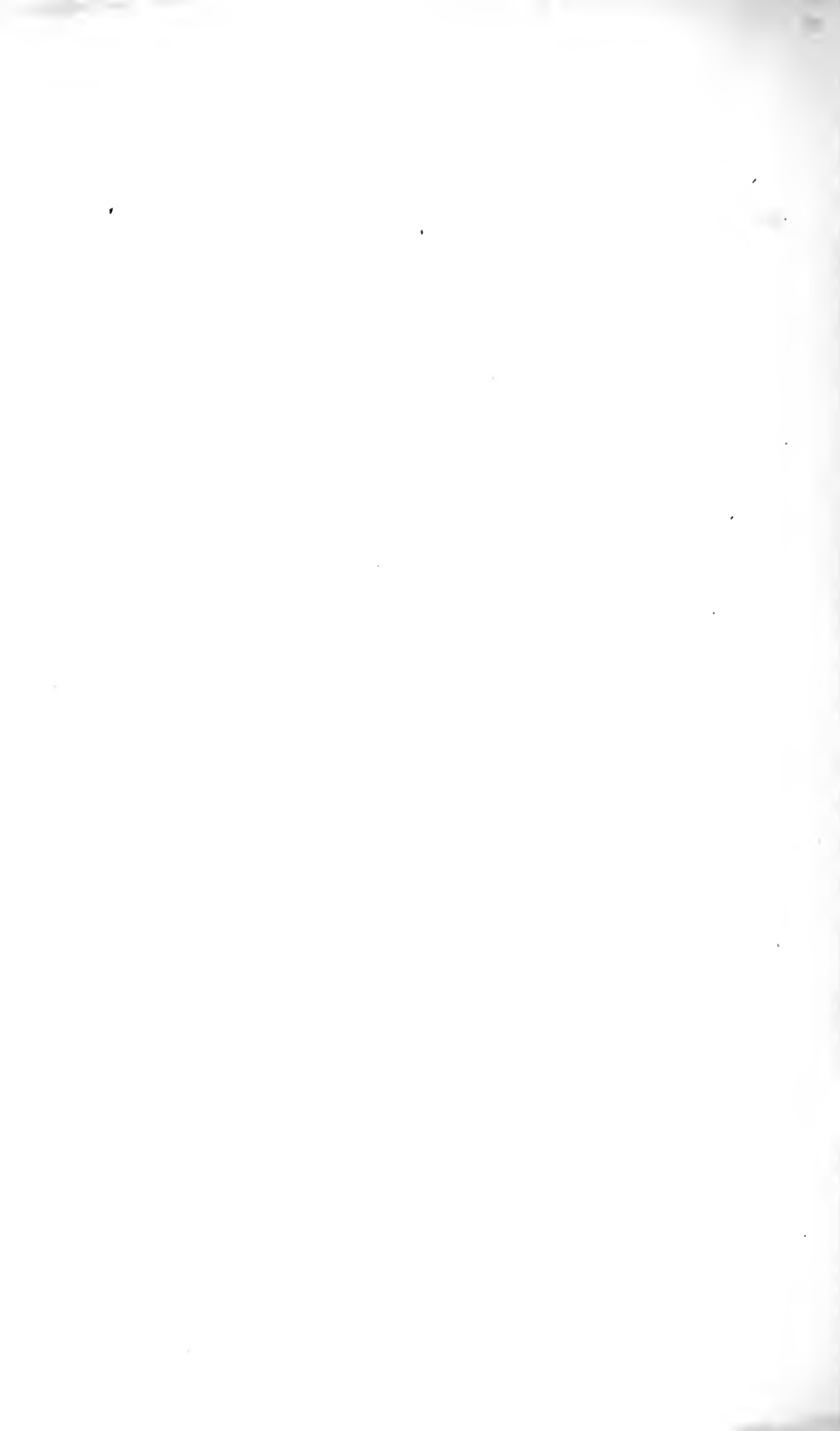


## The Commonwealth of Massachusetts.

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*To the Honorable Senate and House of Representatives in General Court  
assembled.*

We respectfully submit the forty-third annual report of the  
Board of Railroad Commissioners:—



# RAILROADS.

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Annual returns for the year ending June 30, 1911, have been received from thirty-six railroad corporations, six less than last year. One return has been received from a canal company.

The Berkshire, New Haven and Northampton, Rhode Island and Massachusetts (October 26, 1910) Milford, Franklin and Providence and Milford and Woonsocket (December 19, 1910) have been merged with the New York, New Haven and Hartford. All of these companies have made returns to these several dates.

The Cape Ann Granite has been dropped from the list, the enterprise having been abandoned, and proceedings are now pending to dissolve the company.

During the year two new railroad corporations, the Southern New England and the Hampden, were organized under the general law, and routes for them have been approved by the Board.

There was returned the past year a net increase of 1.06 miles of railroad line located in this Commonwealth, caused by an addition and a remeasurement.

There were increases of 20.52 miles of second main track, .65 of a mile of third main track, .62 of a mile of fourth main track and 33.93 miles of side track.

There are now in Massachusetts 2,111.22 miles of main and branch railroad line. The total length of railroad track within the Commonwealth, including second, third and fourth main track and side track, is 4,816.31 miles.

## STATISTICS.

BOSTON, January 1, 1912.

*Board of Railroad Commissioners.*

GENTLEMEN:— I submit the following compilations of statistics from the returns of the several railroad companies to the Board for the year ending June 30, 1911.

The 4.20 miles of road owned by the Hartford & Connecticut Western, located in this Commonwealth and operated by the Cen-

tral New England, are not included in the following tables and statistics.

The following table gives the length of railroad line and track in this Commonwealth June 30, 1911, as compared with the previous year:—

*Railroad Mileage in Massachusetts, 1910 and 1911.*

RAILROAD MILEAGE.	1910.	1911.	Increase.
	Miles.	Miles.	Miles.
Length of main and branch line, .	2,110.16	2,111.22	1.06
Length of second track, . . .	900.77	921.29	20.52
Length of third track, . . . .	77.21	77.86	.65
Length of fourth track, . . . .	42.00	42.62	.62
Length of side track, . . . . .	1,629.39	1,663.32	33.93
Total reckoned as single track, .	4,759.53	4,816.31	56.78

*Mileage Owned.*

The total length of railroad line *owned* by the Massachusetts companies *in* and *out* of the Commonwealth is 4,002.34<sup>1</sup> miles; and the total length of railroad track so owned is 8,567.14<sup>3</sup> miles. The miles of main and branch line, of second, third and fourth main track, and of side track, owned June 30, 1911, and the increase over the previous year, are stated in the following table:—

*Mileage Owned by Massachusetts Companies, 1910 and 1911.*

MILEAGE OWNED.	1910.	1911.	Increase.
	Miles.	Miles.	Miles.
Length of main and branch lines, .	4,002.64 <sup>1</sup>	4,002.34 <sup>1</sup>	.30*
Length of second track, . . . .	1,473.83	1,502.21	28.38
Length of third track, . . . . .	168.27	170.25	1.98
Length of fourth track, . . . . .	108.28	108.90	.62
Length of side track, . . . . .	2,736.64 <sup>2</sup>	2,783.44 <sup>2</sup>	46.80
Total reckoned as single track, .	8,489.66 <sup>3</sup>	8,567.14 <sup>3</sup>	77.48

<sup>1</sup> Includes 18.10 miles electric street railway.

<sup>2</sup> Includes 1.14 miles electric street railway.

<sup>3</sup> Includes 19.24 miles electric street railway track.

\* Decrease.

*Mileage Operated.*

The length of railroad line *operated* by the Massachusetts companies, *within* and *without* the Commonwealth, including roads operated under lease or contract as well as roads owned, is 4,917.65<sup>1</sup> miles; and the total length of track so operated is 10,080.05<sup>3</sup> miles,—as shown in detail, with the increase and decrease for the year, in the next table:—

*Mileage Operated by Massachusetts Companies, 1910 and 1911.*

MILEAGE OPERATED.	1910.	1911.	Increase.
	Miles.	Miles.	Miles.
Length of main and branch lines, .	4,917.84 <sup>1</sup>	4,917.65 <sup>1</sup>	.19*
Length of second track, . . .	1,567.11	1,595.37	28.26
Length of third track, . . .	193.05	194.83	1.78
Length of fourth track, . . .	131.52	132.00	.48
Length of fifth track, . . .	8.90	8.90	—
Length of sixth track, . . .	8.90	8.90	—
Length of side track, . . .	3,149.03 <sup>2</sup>	3,222.40 <sup>2</sup>	73.37
Total reckoned as single track, .	9,976.35 <sup>3</sup>	10,080.05 <sup>3</sup>	103.70

<sup>1</sup> Includes 47.53 miles electric street railway.

<sup>2</sup> Includes 3.16 miles electric street railway.

<sup>3</sup> Includes 50.63 miles electric street railway track.

\* Decrease.

## COMPARATIVE GENERAL BALANCE SHEET.

In any examination for purposes of comparison between the report here following and prior reports, it must be distinctly understood that by reason of the adoption by the Board, under authority of law, of the form of return prescribed by the Interstate Commerce Commission, the return now adopted differs substantially in principle from the return formerly in use under authority of the Board. The assets and liabilities in the comparative general balance sheet of the companies, as returned June 30, 1911, have been tabulated and the increase or decrease in each class as compared with 1910 appear in the two following tables:—

*Assets June 30, 1910 and 1911.*

ASSETS.	1910.	1911.	Increase.
Road and equipment, . . .	\$434,559,353	\$454,888,660	\$20,329,307
Securities owned, . . .	161,898,121	154,249,278	7,648,843*
Other investments, . . .	71,487,734	80,624,752	9,137,018
Working assets, . . .	83,185,329	106,013,154	22,827,825
Accrued income not due, .	1,274,658	1,385,948	111,290
Deferred debit items, . .	21,036,699	21,605,830	569,131
Profit and loss (balance), .	438,679	96,092	342,587*
Grand total, . . .	\$773,880,573	\$818,863,714	\$44,983,141

\* Decrease.

*Liabilities June 30, 1910 and 1911.*

LIABILITIES.	1910.	1911.	Increase.
Capital stock, common, . .	\$260,490,541	\$299,435,366	\$38,944,825
Capital stock, preferred, .	24,609,800	25,009,800	400,000
Total capital stock, . . .	\$285,100,341	\$324,445,166	\$39,344,825
Funded debt, . . . . .	356,983,950	334,371,200	22,612,750*
Obligations for advances for construction, . . . . .	719,465	991,006	271,541
Working liabilities, . . . .	30,942,685	54,689,339	23,746,654
Accrued liabilities not due, .	14,879,633	14,487,664	391,969*
Deferred credit items, . . .	15,857,135	9,621,250	6,235,885*
Premium on capital stock, .	32,442,220	46,311,851	13,869,631
Premium on bonds, . . . .	1,103,883	629,373	474,510*
Sinking and reserve funds, .	3,753,803	4,698,545	944,742
Additions to property through income, . . . . .	238,571	520,980	282,409
Profit and loss (balance), .	31,858,887	28,097,340	3,761,547*
Grand total, . . . . .	\$773,880,573	\$818,863,714	\$44,983,141

\* Decrease.



## CAPITAL STOCK AND DIVIDENDS.

The aggregate capital stock June 30, 1911 (not including the premiums on sale of capital stock as returned in the form of return), of the thirty Massachusetts corporations (the Nantucket not included, not having issued its capital stock) was \$324,445,-165.70, — a net increase of \$39,344,825.00\* over the previous year, resulting from additions and deductions as follows:—

## Additions:—

Boston & Lowell, . . . . .	\$280,000 00
Boston & Maine, . . . . .	10,070,850 00*
Fitchburg, . . . . .	400,000 00
New York, New Haven & Hartford, . . . . .	34,781,075 00
Old Colony, . . . . .	800,000 00
<hr/>	
Total additions to capital stock, . . . . .	\$46,331,925 00

## Deductions:—

Berkshire, . . . . .	\$1,078,700 00
Milford, Franklin & Providence, . . . . .	100,000 00
Milford & Woonsocket, . . . . .	148,600 00
New Haven & Northampton, . . . . .	2,460,000 00
Rhode Island & Massachusetts, . . . . .	100,000 00
Worcester, Nashua & Rochester, . . . . .	3,099,800 00
<hr/>	
Total deductions from capital stock, . . . . .	\$6,987,100 00
<hr/>	
Net increase to capital stock, . . . . .	\$39,344,825 00

The total amount of dividends declared during the year was \$21,780,406.45, — an increase of \$2,783,749.45 over the previous year.

Twenty-seven of the thirty-seven corporations declared dividends varying in rate from 1 to 14 per cent, and ten paid no dividends. One company paid 14 per cent; four paid 10 per cent; one paid 9.50 per cent; one paid 9 per cent; one paid 8.75 per cent; one paid 8 per cent and \$1.00 and \$1.50 per share on installments on capital stock; four paid 8 per cent; and four paid 7 per cent; two paid 6 per cent; one paid at rate of 6 per cent and 4 per cent on varying

---

\* Includes \$382,750.00 "Receipts outstanding for installments paid."

amounts of common, 6 per cent on preferred capital stock and 1.50 per cent and 1 per cent on varying amounts of "outstanding receipts for installments paid on capital stock"; one paid 5.75 per cent; two paid 5 per cent; one paid 3 per cent; one paid 2.50 per cent; one paid 1.50 per cent and one paid 1 per cent.

The amount of capital stock of the twenty-seven dividend-paying companies was \$323,603,165.70,<sup>1</sup> on which the average rate of dividend was 6.73 per cent.

The following table gives the total capital stock outstanding at the end of the year; the net income available for dividends (after paying all expenses, interest, taxes, rentals and other charges); the amount of dividends declared; and the average percentage of dividends to total capital stock, for each of the last ten years:—

*Capital Stock, Net Income and Dividends, 1902-1911.*

YEARS.	Capital Stock.	Net Divisible Income.	Dividends Declared.	Percentage to Total Capital Stock.
1902, . . .	\$210,726,786	\$13,818,341	\$13,201,264	<b>6.26</b>
1903, . . .	235,834,466	13,778,968	13,495,189	<b>5.97</b>
1904, . . .	237,423,886	14,821,360	14,985,816	<b>6.35</b>
1905, . . .	238,223,886	15,679,266	15,431,930	<b>6.48</b>
1906, . . .	242,033,936	16,348,523	15,551,107	<b>6.43</b>
1907, . . .	283,509,391	17,720,935	16,751,279	<b>5.91</b>
1908, . . .	235,462,291	11,602,252	17,683,965	<b>7.51</b>
1909, . . .	238,900,816	16,065,768	16,964,681	<b>7.10</b>
1910, . . .	285,100,341	20,162,394*	18,996,657	<b>6.70</b>
1911, . . .	324,445,166	17,335,645*	21,780,406	<b>6.71</b>

<sup>1</sup> Including common stock on which, in the case of one of these companies, no dividend was paid.

\* Appropriations for additions, betterments and reserves deducted.

#### FUNDED DEBT.

The aggregate funded debt of the companies June 30, 1911 (not including "obligations for advances received for construction, equipment and betterments" as returned in the form of return),

was \$334,371,200.00, — a decrease of \$22,612,750.00 from the previous year, resulting from additions and deductions as follows: —

Additions: —

Boston & Maine, . . . . .	\$1,766,000 00
Union Freight, . . . . .	60,000 00

Total additions to funded debt, . . . . .	\$1,836,000 00
-------------------------------------------	----------------

Deductions: —

Connecticut River, . . . . .	\$2,450 00
Hoosac Tunnel & Wilmington, . . . . .	2,000 00
Milford, Franklin & Providence, . . . . .	10,000 00
Milford & Woonsocket, . . . . .	60,000 00
New Haven & Northampton, . . . . .	3,100,000 00
New York, New Haven & Hartford, . . . . .	19,498,300 00
Worcester, Nashua & Rochester, . . . . .	1,776,000 00

Total deductions from funded debt, . . . . .	\$24,448,750 00
----------------------------------------------	-----------------

Net decrease of funded debt, . . . . .	\$22,612,750 00
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### INCOME AND EXPENDITURES.

The total income of the companies from all sources, for the year ending June 30, 1911, was \$146,537,220, and the total expenditures, including dividends declared, were \$150,981,982, — showing a net deficit for the year of \$4,444,762 to be deducted from surplus account.

The sources of total income, and the amount derived from each source as compared with the previous year, were as follows: —

#### *Total Income, 1910 and 1911.*

INCOME.	1910.	1911.	Increase.
Total operating revenue, . . .	\$120,140,993	\$123,959,490	\$3,818,497
Net revenue from outside operations.	1,445,143	1,536,426	91,283
Rents from lease of road, . . .	10,690,222	10,605,492	84,730*
Other income, . . . . .	10,090,771	10,435,812	345,041
Gross income, . . . . .	\$142,367,129	\$146,537,220	\$4,170,091

\* Decrease.

The items of the total expenditures for the year 1910 and also those for the year 1911, with the surplus for the year 1910 and the deficit for the year 1911, and the increase or decrease in each item as compared with the previous year, are shown in the following table:—

*Total Expenditures, 1910 and 1911.*

EXPENDITURES.	1910.	1911.	Increase.
Operating expenses, . . .	\$82,067,516	\$89,525,903	\$7,458,387
Taxes, . . . . .	6,871,469	6,663,381	208,088*
Rents for lease of road, . .	13,792,830	13,126,984	665,846*
Hire of equipment, . . .	1,287,906	1,523,547	235,641
Joint facilities and other rents,	1,913,031	2,133,101	220,070
Interest on funded and other debts.	15,821,457	15,934,669	113,212
Other deductions from income, .	189,776	239,363	49,587
Dividends declared, . . .	18,996,657	21,780,406 <sup>1</sup>	2,783,749
Appropriations for additions, betterments and reserves.	260,750	54,628	206,122*
Gross expenditures, . . .	\$141,201,392	\$150,981,982	\$9,780,590
Surplus for the year, . . .	1,165,737	4,444,762 <sup>d</sup>	5,610,499*

<sup>d</sup> Deficit.

\* Decrease.

<sup>1</sup> Includes \$1,958,971.45 paid out of surplus.

OPERATING REVENUES AND EXPENSES.

The operating revenues and expenses of operation for the past year are classified, and compared with those of the previous year, in the following table:—

*Operating Revenues and Expenses, 1910 and 1911.*

REVENUES AND EXPENSES.	1910.	1911.	Increase.
Freight revenue, . . . . .	\$64,070,157	\$65,038,750	\$968,593
Passenger revenue, . . . . .	\$45,763,184	\$48,430,953	\$2,667,769
Excess baggage revenue, . . . . .	349,749	352,388	2,639
Mail revenue, . . . . .	1,490,187	1,491,021	834
Express revenue, . . . . .	4,724,538	4,587,847	136,691*
Milk revenue, . . . . .	394,305	430,972	36,667
Other passenger train revenue, . . . . .	273,908	308,925	35,017
Total passenger service train revenue, . . . . .	\$52,995,871	\$55,602,106	\$2,606,235
Switching and miscellaneous revenue, . . . . .	890,236	952,903	62,667
Total revenue from transportation, . . . . .	\$117,956,264	\$121,593,759	\$3,637,495
Revenue from operations other than transportation, . . . . .	1,857,696	1,962,373	104,677
Joint facilities revenue, . . . . .	327,033	403,358	76,325
Total operating revenues, . . . . .	\$120,140,993	\$123,959,490	\$3,818,497
Operating expenses, . . . . .	82,067,516	89,525,902	7,458,386
Net operating revenue, . . . . .	\$38,073,477	\$34,433,588	\$3,639,889*

\* Decrease.

The next table shows the revenue from passenger service and freight service respectively, the other revenue from operation, and the total operating revenues on all the roads for each of the past ten years:—

*Total Revenue from Operation for Ten Years, 1902–1911.*

YEARS.	Revenue from Passenger Service.	Revenue from Freight Service.	Other Revenue from Operation.	Total Operating Revenues.
1902, . . . . .	\$39,959,789	\$45,984,272	\$976,504	\$86,920,565
1903, . . . . .	42,524,082	49,717,755	1,084,095	93,325,932
1904, . . . . .	43,248,333	51,000,810	1,031,205	95,280,348
1905, . . . . .	44,351,142	53,439,440	1,108,643	98,899,225
1906, . . . . .	46,862,016	57,907,011	1,185,425	105,954,452
1907, . . . . .	49,029,986	61,226,631	1,177,322	111,433,939
1908, . . . . .	49,038,322	55,687,041	1,584,123	106,309,486
1909, . . . . .	48,458,423	56,945,111	2,702,238	108,105,772
1910, . . . . .	52,995,871	64,070,157	3,074,965	120,140,993
1911, . . . . .	55,602,106	65,038,750	3,318,634	123,959,490

*Ratio of Operating Expenses to Operating Revenues.*

The following table gives in like manner the total operating revenues, the operating expenses; the ratio of operating expenses to total operating revenues, and the net revenue from operation for all the companies for ten years:—

*Ratio of Operating Expenses to Total Operating Revenues, 1902-1911.*

YEARS.	Operating Total Revenues.	Operating Expenses.	Percentage of Expenses to Revenues.	Net Revenue from Operation.
1902, . . .	\$86,920,565	\$61,355,821	<b>70.59</b>	\$25,564,744
1903, . . .	93,325,932	67,774,864	<b>72.62</b>	25,551,068
1904, . . .	95,280,348	69,145,285	<b>72.57</b>	26,135,063
1905, . . .	98,899,225	71,393,485	<b>72.19</b>	27,505,740
1906, . . .	105,954,452	73,885,985	<b>69.73</b>	32,068,467
1907, . . .	111,433,938	80,912,538	<b>72.61</b>	30,521,400
1908, . . .	106,309,486	80,956,652	<b>76.15</b>	25,352,834
1909, . . .	108,105,772	75,048,921	<b>69.42</b>	33,056,851
1910, . . .	120,140,993	82,067,516	<b>68.31</b>	38,073,477
1911, . . .	123,959,490	89,525,902	<b>72.22</b>	34,433,588

INCOME AND EXPENDITURES OF THE THREE LEADING RAILROADS  
IN THE COMMONWEALTH.

The seven following tables show in detail the revenues, income and expenditures of the three leading railroads of the Commonwealth as returned for the year ending June 30, 1911.

*Revenue from Transportation.*

RAILROAD COMPANIES.	Revenue from Passenger Train Service.	Revenue from Freight Train Service.	Revenue from Switching and Miscellaneous Service.	Total Revenue from Transportation.
Boston & Albany,* . .	\$6,452,235	\$7,725,985	\$227,843	\$14,406,063
Boston & Maine, . .	17,742,302	25,891,481	455,820	44,089,603
N. Y., N. H. & Hartford,	30,154,916	30,329,093	258,400	60,742,409

\* Operations of the New York Central & Hudson River, lessee.

*Total Operating Revenues.*

RAILROAD COMPANIES.	Total Revenue from Transportation.	Revenue from Operations other than Transportation.	Revenue from Joint Facilities.	Total Operating Revenues.
Boston & Albany, . . .	\$14,406,063	\$127,839	\$59,561	\$14,593,463
Boston & Maine, . . .	44,089,603	723,207	2,274	44,815,084
N. Y., N. H. & Hartford,	60,742,409	1,069,503	341,523	62,153,435

*Total Income.*

RAILROAD COMPANIES.	Total Operating Revenues.	Net Revenue from Outside Operations.	Other Income.	Total Income.
Boston & Albany, . . .	\$14,593,463	\$68,397	\$166,896	\$14,828,756
Boston & Maine, . . .	44,815,084	68,236	861,504	45,744,824
N. Y., N. H. & Hartford,	62,153,435	1,399,793	9,178,928	72,732,156

*Gross Corporate Income.*

RAILROAD COMPANIES.	Operating Expenses.	Per Cent Operating Expenses to Operating Revenues.	Taxes.	Gross Corporate Income.
Boston & Albany, . . .	\$11,502,217	<b>78.82</b>	\$911,227	\$2,415,312
Boston & Maine, . . .	35,148,703	<b>78.43</b>	2,089,905	8,506,216
N. Y., N. H. & Hartford,	40,898,633	<b>65.80</b>	3,578,363	28,255,160

*Deductions from Gross Corporate Income.*

RAILROAD COMPANIES.	Rents for Lease of Road.	Hire of Equipment.	Joint Facilities and Other Rents.	Interest on Funded Debt.
Boston & Albany, . . .	\$2,940,820	\$608,826	\$178,880	—
Boston & Maine, . . .	5,385,054	848,581	53,637	\$1,704,380
N. Y., N. H. & Hartford,	4,478,324	—	1,874,135	9,816,319

*Total Deductions and Net Corporate Income.*

RAILROAD COMPANIES.	Interest on Other Debts.	Other Deductions.	Total Deductions from Gross Corporate Income.	Net Corporate Income.
Boston & Albany, . .	\$41,378	\$122,840	\$3,892,744	\$1,477,432 <sup>d</sup>
Boston & Maine, . .	129,791	28,785	8,150,228	355,988
N. Y., N. H. & Hartford,	894,070	5,000	17,067,848	11,187,312

<sup>d</sup> Net corporate loss.*Disposition of Net Corporate Income.*

RAILROAD COMPANIES.	Dividend De- clared.	Per Cent to Capital Stock.	Appropriations for Additions, Betterments and Reserves.	Surplus for the Year.
Boston & Albany, . .	—	—	—	\$1,477,432 <sup>d</sup>
Boston & Maine, . .	— <sup>1</sup>	— <sup>2</sup>	—	335,988
N. Y., N. H. & Hartford,	\$12,454,852	— <sup>3</sup>	—	1,267,540 <sup>d</sup>

<sup>1</sup> Dividends were paid and charged to surplus.<sup>2</sup> At rate of six per cent and four per cent on varying amounts of common; six per cent on preferred capital stock and one and one-half per cent and one per cent on varying amounts of "outstanding receipts for installments paid" on capital stock.<sup>3</sup> Eight per cent on varying amounts of capital stock issued and \$1.00 per share and \$1.50 per share on part paid stock.<sup>d</sup> Deficit.

The miles of track owned, and also track operated June 30, 1911, of the three leading railroads of the Commonwealth, are stated in detail in the two following tables:—

*Miles Owned June 30, 1911.*

RAILROAD COMPANIES.	Main Line and Branches.	Second Track.	Third and Fourth Track.	Side Track.	Total Track Owned.
Boston & Albany, . .	303.81	215.42	101.51	355.36	976.10
Boston & Maine, . .	743.01	216.53	2.56	432.77	1,394.87
N. Y., N. H. & Hartford,	1,239.07	449.57	124.35	812.92	2,625.91



*Miles Operated June 30, 1911.*

RAILROAD COMPANIES.	Main Line and Branches.	Second Track.	Third, Fourth, Fifth and Sixth Track.	Side Track.	Total Track Operated.
Boston & Albany,* .	392.22	215.42	101.51	386.14	1,095.29
Boston & Maine, . .	2,290.33	559.61	10.41	1,340.93	4,201.28
N. Y., N. H. & Hartford,	2,039.99	806.31	232.71	1,441.12	4,520.13

\* Operated by the New York Central & Hudson River, lessee.

*Revenues and Expenses per Mile of Road Operated.*

The average operating revenues and expenses of operation, and the net operating revenue, per mile of road operated by the three leading companies for the last year, and by all of the companies for the past ten years, are shown in the following tables:—

*Operating Revenues and Expenses per Mile of Road Operated (Three Roads) in 1911.*

RAILROAD COMPANIES.	Total Operating Revenues.	Operating Expenses.	Net Operating Revenue.
Boston & Albany, . . .	\$37,208	\$29,326	\$7,882
Boston & Maine, . . .	19,982	15,672	4,310
N. Y., N. H. & Hartford, .	30,467	20,048	10,419

*Revenues and Expenses per Mile of Road Operated, 1902-1911.*

YEARS.	Total Operating Revenues.	Operating Expenses.	Net Operating Revenue.	YEARS.	Total Operating Revenues.	Operating Expenses.	Net Operating Revenue.
1902, .	\$17,785	\$12,554	\$5,231	1907, .	\$22,623	\$16,427	\$6,196
1903, .	19,020	13,813	5,207	1908, .	21,602	16,450	5,152
1904, .	19,304	14,009	5,295	1909, .	21,979	15,258	6,721
1905, .	19,931	14,388	5,543	1910, .	24,668	16,850	7,818
1906, .	21,483	14,981	6,502	1911, .	25,207	18,205	7,002

*Operating Revenues and Expenses per Revenue Train Mile.*

The average operating revenues and expenses of operation, and the net operating revenue, per total mile run by trains earning revenue, on all the roads, for each of the last ten years, are stated in the following table:—

*Operating Revenues and Expenses per Total Revenue-Train Mile 1902-1911.*

YEARS.	Total Operating Revenues.	Operating Expenses.	Net Operating Revenue.	YEARS.	Total Operating Revenues.	Operating Expenses.	Net Operating Revenue.
1902, .	\$1.853	\$1.308	\$0.545	1907, .	\$2.024	\$1.470	\$0.554
1903, .	1.887	1.370	.517	1908, .	2.002	1.525	.477
1904, .	1.864	1.352	.512	1909, .	2.112	1.466	.646
1905, .	1.936	1.398	.538	1910, .	2.235	1.527	.708
1906, .	2.020	1.408	.612	1911, .	2.246	1.622	.624

*Operating Revenues and Expenses per Revenue-Train Mile (Three Roads) in 1911.*

RAILROAD COMPANIES.	Gross Passenger Revenue per Passenger-Train Mile.	Gross Freight Revenue per Freight-Train Mile.	PER TOTAL REVENUE-TRAIN MILE.		
			Total Operating Revenues.	Operating Expenses.	Net Operating Revenue.
Boston & Albany, . .	\$1.539	\$2.388	\$1.964	\$1.548	\$0.416
Boston & Maine, . .	1.411	2.721	2.017	1.582	.435
N. Y., N. H. & Hartford,	1.881	4.051	2.638	1.736	.902

The average gross passenger revenue per passenger-train mile and the gross freight revenue per freight-train mile, and the total operating revenues, expenses and net operating revenue per total revenue-train mile of the three leading railroads of the Commonwealth are given for the last year in the preceding table.

The *expenses* of operation per passenger-train mile and per freight-train mile, respectively, cannot be stated, because the operating expenses of the passenger service department are not kept by the companies separately from those of the freight service department.

## VOLUME OF TRAFFIC.

*Train Mileage.*

The total number of miles run by passenger trains (including in the passenger train mileage, one-quarter of the mixed train mileage and all the special train mileage) the last year, on the roads of all the companies, was 34,522,583 — an increase of 961,760 miles over the previous year; by freight trains (including three-quarters of the mixed train mileage), 20,674,982 — an increase of 484,588 miles; and by all other trains 16,243,465 — an increase of 435,342 miles, making the total number of miles run by trains of all kinds 71,441,030 — an increase of 1,881,690 miles over the previous year.

The mileage of passenger, freight and other trains, for each of the last ten years, is stated in the following table: —

*Train Mileage for Ten Years, 1902-1911.*

YEARS.	MILES RUN BY			Total Train Mileage.
	Passenger Trains.	Freight Trains.	Other Trains.	
1902, . .	29,651,287	17,261,795	17,032,739	63,945,821
1903, . .	30,925,409	18,523,087	18,031,805	67,480,301
1904, . .	31,876,672	19,250,202	17,874,984	69,001,858
1905, . .	31,560,016	19,518,636	16,565,460	67,644,112
1906, . .	31,930,025	20,531,721	16,924,573	69,386,319
1907, . .	33,404,569	21,638,150	18,847,553	73,890,272
1908, . .	33,400,165	19,699,958	15,229,487	68,329,610
1909, . .	32,187,441	19,002,145	14,740,906	65,930,492
1910, . .	33,560,823	20,190,394	15,808,123	69,559,340
1911, . .	34,522,583	20,674,982	16,243,465	71,441,030

The next table shows the revenue train mileage on each of the three leading railroads of the Commonwealth for the last year: —

*Revenue Train Mileage (Three Roads) in 1911.*

RAILROAD COMPANIES.	MILES RUN BY			Total Revenue Train Mileage.
	Passenger Trains.	Freight Trains.	Mixed and Special Trains.	
Boston & Albany, . .	4,181,396	3,206,475	43,255	7,431,126
Boston & Maine, . .	12,533,055	9,383,463	296,469	22,212,987
N. Y., N. H. & Hartford,	15,986,627	7,350,883	218,545	23,556,055

*Passenger Traffic.*

The total number of passengers carried the last year was 162,940,242 — an increase of 2,171,041 passengers over the previous year. Each passenger on the steam roads travelled on the average a distance of 17.24 miles, making the total passenger mileage 2,808,985,698, an increase of 37,864,241 over the previous year.

The total volume of passenger traffic for each of the last ten years is shown in the following table: —

*Passenger Mileage for Ten Years, 1902-1911.*

YEARS.	Passengers Carried.	Average Journey (Miles).	Total Passenger Mileage.	Average Passenger Mileage per Train Mile.
1902, . . . .	115,645,897	17.14	1,982,170,406	67
1903, . . . .	123,162,793	17.16	2,112,874,995	68
1904, . . . .	124,483,665 <sup>1</sup>	17.49 <sup>2</sup>	2,133,524,260 <sup>2</sup>	67 <sup>2</sup>
1905, . . . .	127,439,566 <sup>3</sup>	17.75 <sup>2</sup>	2,205,586,782 <sup>2</sup>	70 <sup>2</sup>
1906, . . . .	137,834,000 <sup>4</sup>	17.41 <sup>2</sup>	2,342,560,774 <sup>2</sup>	73 <sup>2</sup>
1907, . . . .	146,821,836 <sup>5</sup>	17.49 <sup>2</sup>	2,505,631,328 <sup>2</sup>	75 <sup>2</sup>
1908, . . . .	144,844,546	17.58	2,546,160,478	76
1909, . . . .	147,051,164	17.39	2,556,994,990	79
1910, . . . .	160,769,201	17.23	2,771,121,457	83
1911, . . . .	162,940,242	17.24	2,808,985,698	81

<sup>1</sup> Includes 2,567,868 on electric street railways.

<sup>4</sup> Includes 3,249,179 on electric street railways.

<sup>2</sup> Not including electric street railways.

<sup>5</sup> Includes 3,569,160 on electric street railways.

<sup>3</sup> Includes 3,205,299 on electric street railways.

The passenger mileage on the three leading railroads during the last year was as follows: —

*Passenger Mileage (Three Roads) in 1911.*

RAILROAD COMPANIES.	Passengers Carried.	Average Journey (Miles).	Total Passenger Mileage.	Average Passenger Mileage per Passenger-Train Mile.
Boston & Albany, . .	11,402,039	27.28	311,075,714	74
Boston & Maine, . .	48,666,086	17.72	862,472,977	68
N. Y., N. H. & Hartford,	83,193,164	18.44	1,534,301,064	96

*Freight Traffic.*

The total number of tons of freight hauled on all the roads the last year was 56,557,644—an increase of 771,210 tons over the previous year. Each ton of freight was hauled on the average a distance of 97.85 miles, making the total freight mileage, 5,534,064,740—an increase of 100,156,659 tons hauled one mile, over the previous year.

*Freight Mileage for Ten Years, 1902-1911.*

YEARS.	Tons of Freight Hauled.	Average Haul (Miles).	Total Freight Mileage.	Average Freight Mileage per Freight-Train Mile.
1902, . . . .	41,440,170	86.70	3,592,963,862	208
1903, . . . .	43,992,978	89.31	3,928,993,919	212
1904, . . . .	43,727,514	90.22	3,945,026,293	205
1905, . . . .	45,874,649	92.31	4,234,491,283	217
1906, . . . .	50,464,667	91.43	4,613,873,938	225
1907, . . . .	53,806,796	93.58	5,035,305,109	233
1908, . . . .	47,251,469	99.25	4,689,724,439	238
1909, . . . .	49,259,397	97.51	4,803,498,797	253
1910, . . . .	55,786,434	97.41	5,433,908,081	273
1911, . . . .	56,557,644	97.85	5,534,064,740	268

The preceding table gives the total volume of freight traffic for each of the last ten years.

The next table gives the freight mileage on the three leading roads for the last year:—

*Freight Mileage (Three Roads) in 1911.*

RAILROAD COMPANIES.	Tons of Freight Hauled.	Average Haul (Miles).	Total Freight Mileage.	Average Freight Mileage per Freight-Train Mile.
Boston & Albany, .	7,759,726	116.87	906,851,175	280
Boston & Maine, .	23,064,301	102.54	2,365,046,613	248
N. Y., N. H. & H.,	23,257,041	93.80	2,181,557,124	291

## FARES AND FREIGHTS.

*Passenger Fares.*

The average passenger fare per mile on the Massachusetts railroads for each of the last thirty years, as ascertained from the annual returns to the Board, is given in the following table:—

*Average Passenger Fare per Mile (All Massachusetts Roads) for 30 Years, 1882-1911.*

YEARS.	Fares.	YEARS.	Fares.	YEARS.	Fares.
	Cents.		Cents.		Cents.
1882, . . .	2.00	1892, . . .	1.83	1902, . . .	1.73
1883, . . .	2.00	1893, . . .	1.83	1903, . . .	1.73
1884, . . .	1.92	1894, . . .	1.80	1904, . . .	1.72
1885, . . .	1.88	1895, . . .	1.78	1905, . . .	1.70
1886, . . .	1.88	1896, . . .	1.79	1906, . . .	1.70
1887, . . .	1.85	1897, . . .	1.80	1907, . . .	1.65
1888, . . .	1.90	1898, . . .	1.78	1908, . . .	1.63
1889, . . .	1.87	1899, . . .	1.77	1909, . . .	1.64
1890, . . .	1.82	1900, . . .	1.75	1910, . . .	1.65
1891, . . .	1.83	1901, . . .	1.75	1911, . . .	1.72

The following table gives the average passenger fares per mile on the *five* leading Massachusetts railroads, taken singly and as a group, for the years 1870, 1880 and 1890, and for each of the last three years, 1909 to 1911 inclusive:—

*Average Passenger Fare per Mile (Five Roads) in 1870, 1880, 1890 and 1909-1911.*

RAILROAD COMPANIES.	1870.	1880.	1890.	1909.	1910.	1911.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
Boston & Albany, . . .	2.78	2.09	1.86	1.67	1.69	1.77
Boston & Maine, . . .	2.14	2.14	1.83	1.70	1.69	1.80
Fitchburg, . . .	2.56	1.88	1.91	—	—	—
New England, . . .	—	2.12	1.96	—	—	—
N. Y., N. H. & Hartford, .	2.38	1.92	1.73	1.63	1.65	1.71
All five companies, .	2.40	2.01	1.81	1.66	1.67	1.74

*Freight Rates.*

In the tables which follow, the average rates per ton mile for the transportation of merchandise on the railroads making returns to the Board are shown for the same years and intervals of years, for all of the roads and for the same group of roads, as in the preceding tables of passenger fares.

The first table gives the average freight rate per ton mile on all of the roads for each of the last thirty years:—

*Average Freight Rate per Ton Mile (All Massachusetts Roads) for 30 Years, 1882-1911.*

YEARS.	Rates.	YEARS.	Rates.	YEARS.	Rates.
	Cents.		Cents.		Cents.
1882, . .	1.71	1892, . .	1.36	1902, . .	1.24
1883, . .	1.72	1893, . .	1.39	1903, . .	1.23
1884, . .	1.64	1894, . .	1.33	1904, . .	1.27
1885, . .	1.59	1895, . .	1.28	1905, . .	1.14
1886, . .	1.64	1896, . .	1.28	1906, . .	1.23
1887, . .	1.62	1897, . .	1.25	1907, . .	1.19
1888, . .	1.55	1898, . .	1.22	1908, . .	1.17
1889, . .	1.50	1899, . .	1.18	1909, . .	1.19
1890, . .	1.45	1900, . .	1.22	1910, . .	1.18
1891, . .	1.42	1901, . .	1.20	1911, . .	1.17

The following table shows the average rate per ton mile on the five leading railroads of the Commonwealth, taken singly and as a group, in 1870, 1880 and 1890, and for each of the last three years, 1909 to 1911 inclusive:—

*Average Freight Rate per Ton Mile (Five Roads) in 1870, 1880, 1890 and 1909-1911.*

RAILROAD COMPANIES.	1870.	1880.	1890.	1909.	1910.	1911.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
Boston & Albany, . . .	2.19	1.21	1.11	0.86	0.84	0.85
Boston & Maine, . . .	4.45	2.56	1.76	1.08	1.08	1.09
Fitchburg, . . .	4.81	1.37	0.99	—	—	—
New England, . . .	—	2.86	1.22	—	—	—
N. Y., N. H. & Hartford, .	4.09	2.41	2.07	1.42	1.42	1.39
All five companies, . .	2.95	1.65	1.44	1.18	1.17	1.17

The next table gives the cost of repairs per locomotive and per car on each of the same three roads the last year:—

*Cost of Repairs per Locomotive and per Car (Three Roads) in 1911.<sup>1</sup>*

RAILROAD COMPANIES.	Per Locomotive.	Per Passenger Car. <sup>2</sup>	Per Freight Car.
Boston & Albany, . . . .	\$2,407.18	\$576.03	\$297.31
Boston & Maine, . . . .	1,775.98	496.31	67.00
N. Y., N. H. & Hartford, . . . .	2,107.38	408.30	40.70

<sup>1</sup> Not including "replacement reserves."

<sup>2</sup> Including baggage, express and postal cars.

#### ROLLING STOCK.

The following table shows the amount of rolling stock (owned and leased) of all the companies, as returned at the end of each of the last seven years:—

*Schedule of Rolling Stock, 1905-1911.*

ROLLING STOCK.	1905.	1906.	1907.	1908.	1909.	1910.	1911.
Locomotives, . . .	2,528	2,509	2,604	2,742	2,728	2,749	2,879
Passenger cars, . . .	3,528	3,610	3,751	3,961	4,031	4,126	4,249
Baggage, express and postal cars.	686	702	695	739	749	770	763
Freight cars, . . .	37,009	40,203	43,586	56,967	62,011	63,382	67,084
Gravel cars, etc., . .	1,947	1,976	2,410	2,433	2,673	3,101	3,218

#### NUMBER OF EMPLOYEES.

The average number of persons employed during the last year by all the railroad companies making returns to the Board was 70,719—an increase of 921 over the previous year. The following table gives the average number of employees for each of the last ten years:—



*Average Number of Employees, 1902-1911.*

YEARS.	Number of Employees.	YEARS.	Number of Employees.
1902, . . . .	56,388	1907, . . . .	68,370
1903, . . . .	58,888	1908, . . . .	67,435
1904, . . . .	60,156	1909, . . . .	64,725
1905, . . . .	61,564	1910, . . . .	69,798
1906, . . . .	63,575	1911, . . . .	70,719

Respectfully submitted,  
 EDWIN H. FENNO,  
*Acting Statistician.*

## SUMMARY OF RAILROAD ACCIDENTS.

The number of persons killed and injured on railroads in Massachusetts during the year ending June 30, 1911, as reported by the several companies, together with the number reported in each of the preceding ten years, is shown by the following table: —

*Number of Persons Killed and Injured on Railroads in Massachusetts, 1901-1911.*

YEAR ENDING JUNE 30.		PASSENGERS.		EMPLOYEES.		TRAVELERS ON HIGHWAY AT GRADE CROSSINGS. <sup>1</sup>		TRESPASSERS.		OTHER.		TOTAL.		
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Total.
1901,	. . . . .	4	33	61	323	25	19	89	57	—	—	179	432	611
1902,	. . . . .	11	104	71	486	29	19	124	62	—	—	235	671	906
1903,	. . . . .	7	49	95	466	33	19	128	44	—	—	263	578	841
1904,	. . . . .	4	70	87	417	31	29	139	75	3	7	264	598	862
1905,	. . . . .	6	49	80	438	25	14	142	61	11	15	264	577	841
1906,	. . . . .	22	126	64	437	28	32	126	77	11	8	251	680	931
1907,	. . . . .	8	87	96	716	22	23	158	61	16	19	300	906	1,206
1908,	. . . . .	11	50	92	633	27	30	146	75	15	21	291	809	1 100
1909,	. . . . .	11	123	74	367 <sup>2</sup>	22	13	131	64	12	12	250	579 <sup>2</sup>	829
1910,	. . . . .	9	65	89	210 <sup>2</sup>	29	9	164	50	12	15	303	349 <sup>2</sup>	652
Total,	. . . . .	93	756	809	4,493	271	207	1,347	626	80	97	2,600	6,179	8,779
Average,	. . . . .	9	76	81	449	27	21	135	63	8	10	260	618	878
1911,	. . . . .	11	52	87	181 <sup>2</sup>	25	29	162	48	18	21	303	331 <sup>2</sup>	634

<sup>1</sup> Includes persons killed and injured while crossing tracks at stations in each of the years 1901-1903, inclusive.

<sup>2</sup> The decrease in the number of employees reported injured during the past three fiscal years, with the consequent decrease shown in the total number of persons injured, may be accounted for by the elimination of reports of minor and trivial accidents previously made by two companies.

In addition to the foregoing, there were reported during the year 28 accidents which involved serious detention of passenger trains, but resulted in no personal injuries.

The total number of persons killed and injured during the year ending June 30, 1911, namely, 634, shows a decrease of 18 from the aggregate number reported for the preceding fiscal year, and a decrease of 244 from the average number reported annually for the preceding ten years. Of the total number of casualties, 303 were fatal, as against the same number reported for the year ending June 30, 1910, and as against 260, the average number of fatalities reported annually for the preceding ten years; while 331 were not fatal, as against 349 reported during the year ending June 30, 1910, and as against an average of 618 for the preceding ten-year period.

The marked decrease in the number of injuries reported during the past three years may be accounted for by the fact that the filing of reports by two companies of trivial injuries to its employees, previously included in the yearly summary of railroad accidents, has been discontinued.

Of the total number of persons injured, 30 were children, of whom 17 were fatally injured.

Twenty-nine persons were killed and 31 persons were injured at stations during the year.

The percentage of passengers, employees, travellers on highway at grade crossings, and trespassers killed and injured during the year ending June 30, 1911, to the total number of casualties, is shown by the following table:—

	Killed.	Injured.	Total.
Passengers, . . . . .	3.63	15.71	9.94
Employees, . . . . .	28.71	54.68	42.27
Travellers on highway at grade crossings, .	8.25	8.76	8.52
Trespassers, . . . . .	53.47	14.50	33.12
Other, . . . . .	5.94	6.35	6.15
Total, . . . . .	100.00	100.00	100.00

*Passengers.*

Eleven passengers were killed and 52 injured during the year. All of the fatalities to passengers were reported to have occurred as the result of their own imprudence. Of the number of passengers injured, namely, 52, 42 were reported as injured from causes beyond their control, while 10 were reported as injured through their own imprudence or negligence. The total number of passengers killed and injured during the preceding year was 9 and 65, respectively; the average number of passengers killed and injured annually during the years 1901-1910 was 9 and 76, respectively.

The character of accidents to passengers during the year ending June 30, 1911, is shown by the following:—

CHARACTER OF ACCIDENT.	Killed.	Injured.
Collision, . . . . .	—	22
Derailment, . . . . .	—	17
Falling, . . . . .	3	5
Walking on or crossing track, . . . . .	4	—
Getting on or off trains, cars, etc., . . . . .	3	5
Overhead or side obstruction, . . . . .	1	—
Other, . . . . .	—	3
Total, . . . . .	11	52

The following table shows the ratio of passengers killed and injured to the total number of passengers carried and miles travelled by passengers on railroads in Massachusetts during the years ending June 30, 1910-1911:—

PASSENGERS CARRIED, ETC.	1910.	1911.
Total number of passengers carried in Massachusetts, <sup>1</sup>	128,615,361	130,352,194
Total miles travelled in Massachusetts, <sup>1</sup>	2,216,897,166	2,247,188,558
Passengers <i>killed</i> by causes beyond their control, . . . .	0	0
Ratio to total passengers carried, . . .	—	—
Ratio to total miles travelled, . . . .	—	—
Passengers <i>injured</i> by causes beyond their control, . . . .	34	42
Ratio to total passengers carried, . . .	1 to 3,782,805	1 to 3,103,624
Ratio to total miles travelled, . . . .	1 to 65,202,858	1 to 53,504,489
Passengers <i>killed</i> by their own fault or want of care, . . . .	9	11
Ratio to total passengers carried, . . .	1 to 14,290,596	1 to 11,850,199
Ratio to total miles travelled, . . . .	1 to 246,321,907	1 to 204,289,869
Passengers <i>injured</i> by their own fault or want of care, . . . .	31	10
Ratio to total passengers carried, . . .	1 to 4,148,883	1 to 13,035,219
Ratio to total miles travelled, . . . .	1 to 71,512,812	1 to 224,718,856

<sup>1</sup> The total number of passengers carried and the total miles travelled in Massachusetts are estimated to be about 80 per cent of the total number carried and travelled on the several roads, both in and out of the State.

### *Employees.*

During the year 87 employees were killed and 181 were injured, as against 89 killed and 210 injured during the preceding twelve months. The average number of employees killed and injured annually during the preceding ten years was 81 and 449, respectively. As previously stated, the elimination of a substantial number of reports of minor injuries to employees heretofore made by two railroad companies, and included in the yearly summary of accidents, accounts for the decrease shown in the total number of injuries for the past three fiscal years.

The number of employees killed and injured during the year ending June 30, 1911, classified by character of employment, is shown by the following:—

CHARACTER OF EMPLOYMENT.	1910.		1911.	
	Killed.	Injured.	Killed.	Injured.
Enginemen, . . . . .	3	32	14	31
Trainmen, . . . . .	40	127	19	84
Trackmen and laborers, . . . . .	23	13	21	12
Shopmen, . . . . .	6	2	3	6
Switchmen, . . . . .	—	1	3	1
Stationmen, . . . . .	4	1	1	4
Signalmen, . . . . .	—	3	1	1
Crossingmen, . . . . .	5	—	2	—
Inspectors, . . . . .	2	7	—	—
Bridgemen, . . . . .	—	1	—	2
Freight handlers, . . . . .	3	14	—	9
Yardmen, . . . . .	2	—	19	21
Watchmen, . . . . .	—	2	—	—
Engine-house men, . . . . .	1	4	4	2
Car cleaners, . . . . .	—	1	—	2
Towermen, . . . . .	—	1	—	—
Linemen, . . . . .	—	—	—	3
Other, . . . . .	—	1	—	3
Total, . . . . .	89	210	87	181

The following table shows the character of accidents to employees during the year ending June 30, 1911:—

CHARACTER OF ACCIDENT.	1910.		1911.	
	Killed.	Injured.	Killed.	Injured.
Collision, . . . . .	3	27	5	25
Deraiment, . . . . .	—	7	2	12
Overhead and side obstruction, . . . . .	7	16	4	24
Coupling and uncoupling, . . . . .	12	15	7	24
Falling, . . . . .	7	51	18	44
Engine accidents, . . . . .	—	3	—	1
Walking on or crossing tracks, . . . . .	33	22	35	10
Getting on or off cars, trains, etc., . . . . .	5	33	2	8
Working on track, . . . . .	15	6	10	6
Train breaking apart, . . . . .	—	—	—	3
Other, . . . . .	7	30	4	24
Total, . . . . .	89	210	87	181

*Grade Crossings.*

The number of travellers on highway killed at grade crossings during the year was 25, and the number injured 29, as against 29 killed and 9 injured during the preceding year.

Of the total number killed, 17 were killed at grade crossings protected by gates, flagmen or otherwise; 7 at unprotected crossings (including two persons killed at grade crossings ordinarily protected, but unprotected at the time of the accident) and 1 at a private crossing protected by an electric bell.

Of the total number injured, namely, 29, 13 were injured at protected crossings, 15 at unprotected crossings (including 1 person injured at a grade crossing ordinarily protected, but unprotected at the time of the accident), and 1 at a private crossing.

The following table shows, for the year ending June 30, 1911, the number and character of accidents at grade crossings on the different railroads: —

*Accidents at Grade Crossings during the Year ending June 30, 1911.*

RAILROADS.	PROTECTED CROSSINGS.				UNPROTECTED CROSSINGS.				TOTAL.		AT PRIVATE CROSSINGS.	
	Number.	Killed.	Injured.	Ratio of Accidents to Crossings.	Number.	Killed.	Injured.	Ratio of Accidents to Crossings.	Number.	Killed.	Injured.	Ratio of Accidents to Crossings.
Attleborough Branch, . . . . .	—	—	—	—	15	—	—	—	15	—	—	—
Boston & Albany, . . . . .	54	1	—	1 to 54	130	1	3	1 to 33	184	2	3	1 to 37
Boston & Maine, . . . . .	513	13	2	1 to 34	212	4 <sup>1</sup>	1 <sup>2</sup>	1 to 42	725	17 <sup>1</sup>	3 <sup>2</sup>	1 to 36
Boston, Revere Beach & Lynn, . . . . .	10	—	—	—	—	—	—	—	10	—	—	—
Grafton & Upton, . . . . .	—	—	—	—	29	—	—	—	29	—	—	—
Hoosac Tunnel & Wilmington, . . . . .	—	—	—	—	3	—	—	—	3	—	—	—
Nantucket, . . . . .	5	—	—	—	—	—	—	—	5	—	—	—
New London Northern, . . . . .	7	1	—	1 to 7	41	—	—	—	48	1	—	1 to 48
New York, New Haven & Hartford, . . . . .	466	2	11	1 to 36	312	2	11	1 to 24	778	4	22	1 to 30
Totals for the year, . . . . .	1,055	17	13	1 to 35	742	7 <sup>1</sup>	15 <sup>2</sup>	1 to 34	1,797	24 <sup>1</sup>	28 <sup>2</sup>	1 to 35
Totals for the year ending June 30, 1910, <sup>4</sup> . . . . .	1,071	19	8	1 to 40	737	7	1	1 to 92	1,808	26	9	1 to 52
										3		

<sup>1</sup> Includes 2 persons killed at crossings ordinarily protected, but unprotected at time of accident.<sup>2</sup> Includes 1 person injured at a crossing ordinarily protected, but unprotected at time of accident.<sup>3</sup> Protected by electric bell.<sup>4</sup> Hoosac Tunnel & Wilmington Railroad and Nantucket Railroad not included.



*Trespassers.*

The total number of trespassers killed during the year ending June 30, 1911, was 162; the number of trespassers injured was 48. During the preceding year 164 trespassers were killed and 50 injured, while the average number killed and injured annually for the preceding ten years was 135 and 63 respectively.

The character of accidents to trespassers during the year ending June 30, 1911, is shown by the following:—

CHARACTER OF ACCIDENT.	Killed.	Injured.
Overhead or side obstruction, . . . . .	2	2
Falling, . . . . .	10	5
Walking on or crossing track, . . . . .	136	30
Getting on or off cars, trains, etc., . . . . .	6	11
Other, . . . . .	8	—
Total, . . . . .	162	48

*Other Persons.*

Six persons were reported killed and 18 injured during the year, classified as follows:—

	Killed.	Injured.
Employees of contractors, consignees and consignors, . . . . .	6	7
Employees of Pullman, express companies, etc., . . . . .	—	6
Government employees, . . . . .	—	5
Total, . . . . .	6	18

In addition to the above, 12 persons were reported killed and 3 injured, whose proper classification in the reports of accidents was indeterminable.

## RAILROAD BRIDGES.

*To the Massachusetts Board of Railroad Commissioners.*

GENTLEMEN:—I beg leave to present the following statement regarding the bridges on the steam railroads of the Commonwealth, accompanied by the usual tables.

Table I. gives the total number of bridges of each type, on each of the railroads.

Table II. gives the approximate total length of bridges of stone, wood and metal, on each road.

Table III. gives a summary of the bridge work done during the year ending June 30, 1911.

Referring more in detail to Table III., the work which has been done during the year on the different lines, aside from minor repairs, is as follows:—

TABLE I. — *Number and Description of Railroad Bridges in Massachusetts, June 30, 1911.*

RAILROADS.	Pile bridges.	Steel and Wooden Trestles.	Wooden Stringers.	Braced or Trussed Stringers.	Wooden or Combination Trusses.	Stone, Concrete, or Brick Arches.	I-Beams.	Plate Girders.	Metal Riveted Trusses.	Metal Pin-connected Trusses.	Rails.	Pin-connected Metal Swing Bridges.	Metal Folding, Rolling, Lift, Bascule or Jack-knife Draws.	Pratt, Howe or other Wooden Jack-knife Draws.	Plate Girder Swing Bridges.	Trussed Beam Swing Draws.	Total Spans Stone Bridges.	Total Wooden and Combination Bridges (Fixed Spans).	Total Metal Bridges (Fixed Spans).	Total Movable Bridges.	Grand Totals.	Total Length of Pile and Trestle Bridging (Approximate).
Boston & Albany, . . . . .	5	4	—	—	—	50	55	121	37	—	—	—	4	—	—	—	50	9	213	4	276	2,710
Boston & Maine, . . . . .	60	14 <sup>1</sup>	64	5 <sup>2</sup>	16	92	78	311	64	46	—	—	3	9	1	1	92	158	500	15	765	23,271
Boston, Revere Beach & Lynn, . . . . .	5	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	5	—	2	7	4,985
New London Northern, . . . . .	5	2	7	1	—	1	3	21	12	4	—	—	—	—	—	—	1	15	40	—	56	508
New York, New Haven & Hartford, . . . . .	74	9	73	2	7	136	56	488	15	26	10	2	5	2	1	—	136	165	595	8	904	14,008
Totals, . . . . .	149	29 <sup>1</sup>	144	8 <sup>2</sup>	24	279	192	940	128	77	10	3	13	11	3	1	279	352	1,348	29	2,008	45,542

<sup>1</sup> Including one steel trestle.<sup>2</sup> Including one steel stringer.

TABLE II. — *Length of Bridging of Wood, Stone and Metal, June 30, 1911.*

RAILROADS.	WOODEN BRIDGES.		STONE BRIDGES.		METAL BRIDGES.	
	Number.	Total Length (Feet).	Number.	Total Length (Feet).	Number.	Total Length (Feet).
Boston & Albany, . . .	9	2,710	50	1,240	217	11,265
Boston & Maine, . . .	168	25,346	92	2,003	505	27,390
Boston, Revere Beach & Lynn, . . .	5	4,985	—	—	2	130
New London Northern, . . .	15	644	1	20	40	2,864
N. Y., N. H. & Hartford, . . .	167	15,943	136	3,618	601	25,775
Totals, . . . . .	364	49,628	279	6,881	1,365	67,424

TABLE III. — *Bridge Work Done in the Year ending June 30, 1911.*

RAILROADS.	NEW BRIDGES BUILT.			BRIDGES REBUILT OR REPLACED.			BRIDGES STRENGTHENED OR EXTENSIVELY REPAIRED.		
	Wood.	Stone.	Metal.	Wood.	Stone.	Metal.	Wood.	Stone.	Metal.
Boston & Albany, . . . . .	—	—	—	1 <sup>1</sup>	—	13	—	—	1
Boston & Maine, . . . . .	—	—	3	4	—	9	3	—	2
Boston, Revere Beach & Lynn, . . . . .	—	—	—	1	—	—	—	—	—
New London Northern, . . . . .	—	—	—	1	—	1	3	—	4
N. Y., N. H. & Hartford, . . . . .	—	—	17	12	—	12	5	1	5
Totals, . . . . .	—	—	20	19 <sup>1</sup>	—	35	11	1	12

<sup>1</sup> One as metal.

On the Boston, Revere Beach and Lynn one pile bridge has been provided with new stringers and ties. This completes the rebuilding within the last two years of the three bridges on the main line.

On the New London and Northern one wooden stringer bridge has been rebuilt, and three wooden stringers, two plate girders, one riveted truss and one pin truss have been repaired.

On the Boston and Maine the following work has been done on the different divisions.

On the Portland Division two new plate girders have been built to abolish grade crossings at West Lynn and Gloucester; one steel

draw and one wooden jack-knife draw have been replaced by Strauss Bascule draw-spans; one pile bridge and one wooden stringer have been rebuilt, and two plate girders have been strengthened.

On the Worcester, Nashua and Portland Division one plate girder and one riveted truss have been rebuilt.

On the Southern Division one wooden stringer has been replaced by a plate girder of longer span, and three pile bridges have been extensively repaired.

On the Fitchburg Division one wooden Howe truss and two pony riveted trusses have been replaced by plate girders; two plate girders and one riveted truss have been rebuilt.

On the New York, New Haven and Hartford eight new plate girders and one new riveted truss have been built to eliminate grade crossings at Worcester; one new bascule draw-span has been built; six I-beam and two new plate girder bridges have been built for second tracks; eight plate girders, one riveted truss, one I-beam, five pile and six wooden stringer bridges have been entirely rebuilt; one plate girder has been widened; twenty plate girders, one riveted truss, three I-beam and two pile bridges have been repaired; one stone viaduct, one I-beam, one wooden stringer and three pile bridges have been strengthened, and one I-beam has been replaced by rails.

On the Boston and Albany twelve lattice trusses, one wooden trestle and one plate girder have been replaced by new plate girder bridges, and one plate girder has been extensively repaired.

Respectfully submitted,

GEO. F. SWAIN,  
*Consulting Engineer.*

## ISSUES OF STOCK AND BONDS.

*Issues of Capital Stock.*

RAILROAD CORPORATIONS.	Date when Authorized.	Amount Authorized.
	1911.	
Boston Railroad Holding Company, .	February 15	\$7,042,400 <sup>1</sup>
Boston Railroad Holding Company, .	November 17	239,500 <sup>1</sup>
Boston and Lowell, . . . . .	February 27	280,000
Old Colony, . . . . .	February 6	800,000
Old Colony, . . . . .	December 12	500,000
Southern New England, . . . . .	October 16	1,000,000 <sup>2</sup>

<sup>1</sup> Preferred stock.<sup>2</sup> Original stock.*Issues of Bonds.*

RAILROAD CORPORATIONS.	Date when Authorized.	Amount Authorized.
	1911.	
Boston Terminal Company, . . . . .	November 7	\$500,000
Fitchburg, . . . . .	December 20	1,200,000
Holyoke and Westfield, . . . . .	March 14	200,000

## RAILWAYS.

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Annual returns for the year ending June 30, 1911, have been received from sixty-six street railway companies, and returns to the date of their consolidation were also received from six companies, making seventy-two returns.

### COMPANIES DROPPED FROM THE LIST.

During the year six companies have been dropped from the list, as follows: the Hartford and Worcester; the Newton and Boston; the Pittsfield Electric; the Uxbridge and Blackstone; the Western Massachusetts; these companies having been consolidated or purchased during the previous year. The Worcester and Northern has also been dropped, the enterprise having been abandoned, and proceedings are now pending to dissolve the company.

### CONSOLIDATION OF COMPANIES.

During the year the Dartmouth and Westport (November 1, 1910) was consolidated with the Union; the Springfield and Eastern (December 1, 1910) with the Springfield; the Marlborough and Westborough, the Worcester and Blackstone Valley, the Worcester and Holden and the Worcester and Southbridge (May 31, 1911) with the Worcester Consolidated. All these companies have made returns to these several dates.

### OPERATION OF COMPANIES.

By reason of consolidations and an abandonment there were at the end of the year sixty-six existing companies. Of this number fifty-one operated their railways, fourteen were operated under leases or contracts by other companies, and one had organized and paid in a portion of its capital stock but had not commenced the construction of its railway.

## RAILWAY MILEAGE.

*New Mileage.*

The net increase during the past year in the mileage of the Massachusetts companies is 15.528 miles of street railway line, and 2.499 miles of second track, making 18.027 miles additional main track. There was also a net increase of 7.465 miles of side track, making a total net increase of 25.492 miles reckoned as single track.

*Mileage Owned.*

The Massachusetts companies now own 2,261.775 miles of street railway line, 458.984 miles of second main track and 195.812 miles of side track, making a total length of track owned, reckoned as single track, 2,916.571 miles. The above includes the 3.195 miles of main line and .103 of a mile of side track which was purchased during the year by the Worcester and Blackstone Valley from the Rhode Island Company of Rhode Island. All the track owned is surface street railway track, with the exception of 9.983 miles of elevated line and 9.830 miles of elevated second track. Of the sidings, all are surface track, with the exception of 5.763 miles of elevated track. All the elevated track is located in the city of Boston.

*Mileage Operated.*

The total miles of main track (including trackage rights) operated was 2,777.650, — an increase of 15.595 miles in the year over the previous nine months.

The Boston and Northern leases and operates the Nashua, having a mileage of main and second track of 14.900 miles, located in New Hampshire; and the Old Colony leases and operates the Newport and Fall River, having a mileage of main and second track of 20.900 miles, located in Rhode Island. Accordingly, 35.800 miles of main and second track are operated outside of this Commonwealth.



## STATISTICS.

BOSTON, January 1, 1912.

*Board of Railroad Commissioners.*

GENTLEMEN: — I submit the following compilations of statistics from the returns of the several street railway companies to the Board for the year ending June 30, 1911.

As the returns for June 30, 1910, were for nine months and those for June 30, 1911, were for a year, there are certain statistics which cannot be compared.

In the following table the 3.195 miles of railway main line and .103 of a mile of side track formerly owned by the Rhode Island of Rhode Island are not included in the 1910 items, but are in the 1911.

The following table gives the length of railway line and track and total reckoned as single track returned by the companies for the year ending June 30, 1911, as compared with the returns for the nine months ending June 30, 1910.

*Street Railway Mileage Owned 1910 and 1911.*

MILEAGE OWNED.	1910.	1911.	Increase.
	Miles.	Miles.	Miles.
Length of railway line, . . . .	2,246.247	2,261.775	15.528
Length of second track, . . . .	456.485	458.984	2.499
Total length of main track, . .	2,702.732	2,720.759	18.027
Length of side track, . . . .	188.347	195.812	7.465
Total reckoned as single track, .	2,891.079 <sup>1</sup>	2,916.571	25.492

<sup>1</sup> Not including 3.195 miles main line and .103 of a mile of side track located in this State owned by the Rhode Island of Rhode Island.

*Mileage Operated.*

The total miles of main track operated (including trackage rights) June 30, 1911, was 2,777.650, — an increase of 15.595 miles in the year over the previous nine months. All the track operated is in this Commonwealth except 35.800 miles located in New Hampshire and Rhode Island and operated by the Boston and Northern or the Old Colony.

## ASSETS AND LIABILITIES.

The gross assets of the companies, June 30, 1911, were \$191,-791,508.16. The several classes of assets and the increase or decrease in each class for the year as compared with the returns for the nine months ending June 30, 1910, are shown in detail in the following table:—

*Assets June 30, 1910 and 1911.*

ASSETS.	1910.	1911.	Increase.
Construction, . . . .	\$87,795,493	\$98,533,615	\$10,738,122
Equipment, . . . . .	31,498,715	31,996,379	497,664
Land and buildings, . . .	41,989,353	42,198,688	209,335
Other permanent property, .	5,563,139	2,014,195	3,548,944*
Cash and current assets, . .	8,785,108	8,231,929	553,179*
Miscellaneous assets, . . .	9,824,380	8,816,702	1,007,678*
Grand total, . . . .	\$185,456,188	\$191,791,508	\$6,335,320

\* Decrease.

The gross liabilities at the same date, including capital stock (but not including sinking and other funds) were \$180,368,094.06. The several kinds of liabilities, and the amount of each as compared for the year with the returns for the nine months ending June 30, 1910, were as follows:—

*Gross Liabilities June 30, 1910 and 1911.*

LIABILITIES.	1910.	1911.	Increase.
Capital stock, . . . . .	\$84,345,065	\$86,639,175	\$2,294,110
Funded debt, . . . . .	67,762,000	71,508,700	3,746,700
Real estate mortgages, . . .	65,399	5,300	60,099*
Current liabilities, . . . .	19,162,839	17,882,305	1,280,534*
Accrued liabilities, . . . .	4,135,186	4,332,614	197,428
Gross liabilities, <sup>1</sup> . . . .	\$175,470,489	\$180,368,094	\$4,897,605
Sinking and other reserve funds,	3,362,404	4,059,630	697,226
Surplus, <sup>2</sup> . . . . .	6,623,295	7,363,784	740,489
Grand total, . . . .	\$185,456,188	\$191,791,508	\$6,335,320

<sup>1</sup> Exclusive of sinking and other reserve funds.<sup>2</sup> Includes premiums on sale of stock and bonds.

\* Decrease.

It will be seen by comparing the last two tables that there was an increase in gross assets of \$6,335,320, and there was an increase in the year in gross liabilities of \$4,897,605, thus increasing the aggregate surplus and sinking and other special funds of the companies by the amount of \$1,437,715.

The gross assets, the gross liabilities (including capital stock) and the surplus of the companies, with the percentage of surplus to capital stock, at the end of each of the last nine years and of the nine months ending June 30, 1910, are shown in the following table:—

*Gross Assets, Liabilities and Surplus, 1902-1911.*

YEARS.	Gross Assets.	Gross Liabilities.	Surplus.*	Percentage of Surplus to Capital.
1902, . . .	\$123,200,558	\$119,441,792	\$3,758,766	<b>6.26</b>
1903, . . .	138,864,215	133,121,411	5,742,804	<b>8.40</b>
1904, . . .	140,843,740	136,049,486	4,794,254	<b>6.99</b>
1905, . . .	151,742,233	145,603,242	6,138,991	<b>8.73</b>
1906, . . .	156,478,141	149,672,263	6,805,878	<b>9.56</b>
1907, . . .	161,297,914	153,847,904	7,450,010	<b>10.17</b>
1908, . . .	170,154,909	162,034,970	8,119,939	<b>10.86</b>
1909, . . .	177,745,988	168,628,151	9,117,837	<b>11.29</b>
1910,† . . .	185,456,188	175,470,489	9,985,699	<b>11.84</b>
1911, . . .	191,791,508	180,368,094	11,423,414	<b>13.19</b>

\* Includes "premiums on sales of stock and bonds" and "sinking and other special funds."

† For nine months ending June 30, 1910.

### CAPITAL STOCK AND DIVIDENDS.

The aggregate capital stock of the sixty-six companies, June 30, 1911, was \$86,639,175.00,—an increase of \$2,294,110.00 over the amount returned June 30, 1910.

#### *Dividends.*

The total amount of dividends declared the past year was \$4,788,907.24. Forty-two out of the seventy-two companies paid dividends ranging from 1 to 10 per cent, and thirty companies declared or paid no dividends. One company paid 10 per cent; two paid 8 per cent; one paid 8 per cent on preferred and 7 per cent on common; one paid 7.22 per cent; one paid 7.20 per cent; two paid 7 per cent; one paid 6.5 per cent; eight paid 6 per cent; two paid

6 per cent on preferred; one paid 6 per cent on preferred and 6 per cent on common; one paid 6 per cent on preferred and 5 per cent on common; one paid 6 per cent on common and 4 per cent on preferred; eight paid 5 per cent; one paid 4.5 per cent; four paid 4 per cent; one paid 3.75 per cent; three paid 3 per cent; one paid 2.5 per cent; one paid 2 per cent; and one paid 1 per cent.

*Capital Stock, Net Income and Dividends, 1902-1911.*

YEARS.	Capital Stock.	Net Divisible Income.	Dividends Declared.	Percentage on Total Capital Stock.
1902, . . .	\$60,036,328	\$3,388,851	\$3,138,711	<b>5.23</b>
1903, . . .	68,404,480	3,602,917	3,586,248	<b>5.24</b>
1904, . . .	68,542,038	2,998,114	3,214,496	<b>4.69</b>
1905, . . .	70,326,985	3,556,690	3,174,505	<b>4.51</b>
1906, . . .	71,216,925	4,160,073	3,554,073	<b>4.99</b>
1907, . . .	73,280,155	4,125,185	3,721,388	<b>5.08</b>
1908, . . .	74,737,505	4,094,977	3,950,965	<b>5.29</b>
1909, . . .	80,728,880	4,527,547	4,120,223	<b>5.10</b>
1910,† . . .	84,345,065	2,600,375	2,767,315	<b>3.28</b>
1911, . . .	86,639,175	5,548,479	4,788,907	<b>5.52</b>

† For nine months ending June 30, 1910.

FUNDED AND FLOATING DEBT.

The funded debt of the companies, June 30, 1911, was \$71,508,700.00, — an increase of \$3,746,700.00 over the nine months ending June 30, 1910.

*Floating Debt.*

The amount of real estate mortgages outstanding June 30, 1911, was \$5,300.00, a decrease of \$60,099, from the nine months ending June 30, 1910.

The total unfunded debt, including the above mortgages, was \$22,220,219, a decrease of \$1,143,205, from the nine months ending June 30, 1910.

The gross debt, funded and unfunded, was \$93,728,919, — an increase of \$2,603,495 over the nine months ending June 30, 1910. The net debt (the gross debt less \$8,231,929 of cash and current assets) was \$85,496,990, — an increase of \$3,156,674 over the nine months ending June 30, 1910. In computing the net debt the sum of \$8,816,702, returned as "miscellaneous assets", covering mate-

rials and supplies on hand, etc., is not included with cash and current assets in the deduction from gross debt.

The funded debt, unfunded debt, gross debt, cash and current assets, and net debt, at the end of each of the last nine years and of the nine months ending June 30, 1910, are shown in the following table:—

*Funded, Unfunded, Gross and Net Debt, 1902-1911.*

YEARS.	Funded Debt.	Unfunded Debt. <sup>1</sup>	Gross Debt.	Cash and Current Assets.	Net Debt. <sup>2</sup>
1902, .	\$37,751,000	\$21,654,464	\$59,405,464	\$6,370,679	\$53,034,785
1903, .	41,411,500	23,305,431	64,716,931	10,455,046	54,261,885
1904, .	46,674,884	20,832,564	67,507,448	6,554,738	60,952,710
1905, .	55,780,500	19,495,758	75,276,258	12,315,705	62,960,553
1906, .	58,176,000	20,279,338	78,455,338	10,447,216	68,008,122
1907, .	59,339,500	21,228,249	80,567,749	5,855,412	74,712,337
1908, .	66,348,500	20,948,965	87,297,465	8,170,683	79,126,782
1909, .	68,078,000	19,821,271	87,899,271	11,959,339	75,939,932
1910, <sup>3</sup>	67,762,000	23,363,424	91,125,424	8,785,108	82,340,316
1911, .	71,508,700	22,220,219	93,728,919	8,231,929	85,496,990

<sup>1</sup> Including real estate mortgages.

<sup>2</sup> Gross debt less cash and current assets.

<sup>3</sup> For nine months ending June 30, 1910.

*Capital Investment.*

The total capital investment (capital stock and net debt) of the street railway companies of the state on June 30, 1911, was \$172,-136,165, — an increase of \$5,450,784 for the year.

COST AND CAPITAL INVESTMENT PER MILE.

The average cost of the street railways of the state, per mile of main track (including the cost but not the length of side track), as returned by the companies June 30, 1911, was \$36,215.49 for construction; \$11,760.09 for equipment; and \$16,250.20 for lands, buildings (including power plants), parks and other permanent property, — making a total average cost of \$64,225.78 per mile of main track.

The following table gives the average cost, classified as above, and also the average capital investment (amount of outstanding capital stock and net debt), per mile of main track, as returned by all of the companies at the end of each of the last nine years and of the nine months ending June 30, 1910:—

*Cost and Capital Investment per Mile of Main Track, 1902-1911.*

YEARS.	Construction.	Equipment.	Other Permanent Property. <sup>1</sup>	Total Cost per Mile.	Capital Investment per Mile. <sup>2</sup>
1902, . .	\$24,495	\$9,026	\$11,889	\$45,410	\$46,261
1903, . .	26,015	9,994	12,546	48,555	48,621
1904, . .	27,025	10,177	13,106	50,308	50,295
1905, . .	27,876	10,112	13,321	51,309	50,772
1906, . .	28,974	10,212	13,616	52,802	52,535
1907, . .	30,064	10,801	14,563	55,428	55,624
1908, . .	31,005	11,103	15,569	57,677	57,521
1909, . .	31,747	11,076	15,757	58,580	58,337
1910, <sup>3</sup> . .	32,484	11,654	17,594	61,732	61,673
1911, . .	36,216	11,760	16,250	64,226	63,268

<sup>1</sup> Chiefly lands, parks, buildings and power plants.<sup>2</sup> Outstanding capital stock and net debt.<sup>3</sup> For nine months ending June 30, 1910.

## INCOME AND EXPENDITURE.

The total income of the companies from all sources for the year ending June 30, 1911, was \$37,044,025.00, and the total expenditures (including dividends declared) for the same period were \$36,284,452.52, — making a net surplus of \$759,572.48 to be added to the surplus of previous years.

The sources of total income, and the amount derived from each source for the nine months ending June 30, 1910, and for the year ending June 30, 1911, are shown in the following table:—

*Total Income for Nine Months ending June 30, 1910 and Year ending June 30, 1911.*

INCOME.	Nine Months, 1910.	Year, 1911.	
Total operating revenues, . .	\$24,032,236	\$35,036,997	The increase or decrease of these items is not given as the returns for 1910 are for nine months and those for 1911 are for a year.
Rents from lease of road, . .	1,072,423	120,389	
Other income, . . . . .	224,653	1,886,639	
Total income, . . . . .	\$25,329,312	\$37,044,025	

The items of total expenditure for the nine months ending June 30, 1910, and for the year ending June 30, 1911, are shown in the following table:—

*Total Expenditures for Nine Months ending June 30, 1910 and Year ending June 30, 1911.*

EXPENDITURES.	Nine Months, 1910.	Year, 1911.	
Operating expenses, . . .	\$16,191,893	\$22,895,804	The increase or decrease of these items is not given as the returns for 1910 are for nine months and those for 1911 are for a year.
Taxes, . . . . .	1,694,084	2,464,686	
Interest on debt and loans, .	2,714,700	3,683,095	
Rents of leased lines, . . .	1,251,756	1,691,390	
Other deductions, . . . .	876,504	760,570	
Dividends declared, . . .	2,767,315	4,788,908	
Total expenditures, . . .	\$25,496,252	\$36,284,453	
Deficit for the nine months, .	166,940	—	
Surplus for the year, . . .	—	759,572	

EARNINGS AND EXPENSES OF OPERATION.

The gross earnings and expenses of operation for the nine months ending June 30, 1910, and for the year ending June 30, 1911, are classified and shown in the following table:—

*Operating Revenues and Expenses for Nine Months ending June 30, 1910 and Year ending June 30, 1911.*

REVENUES AND EXPENSES.	Nine Months, 1910.	Year, 1911.	
Revenue from passengers, . .	\$23,209,300	\$33,802,725	The increase or decrease of these items is not given as the returns for 1910 are for nine months and those for 1911 are for a year.
from mails and merchandise, . . .	243,600	337,463	
from tolls, advertising, etc., . . . . .	579,336	896,809	
Total operating revenues, .	\$24,032,236	\$35,036,997	
Operating expenses, . . . .	16,191,893	22,895,804	
Net operating revenue, . .	\$7,840,343	\$12,141,193	

## VOLUME OF TRAFFIC.

The total number of passengers\* carried during the year on the railways in operation as made by the seventy-two companies making returns to the Board was 683,362,717.

The total number of miles run by street cars during the year was 123,659,082.

The following table gives the total volume of traffic, itemized as above, for each of the last nine years and for the nine months ending June 30, 1910:—

*Volume of Traffic, 1902-1911.*

YEARS.	Total Passengers Carried.*	Average Number per Mile of Main Track Operated.*	Total Car Miles Run.
1902, . . . . .	465,474,382	188,787	100,280,687
1903, . . . . .	504,662,243	192,548	107,506,812
1904, . . . . .	520,056,511	195,917	107,897,456
1905, . . . . .	532,731,017	199,637	109,258,739
1906, . . . . .	581,450,906	212,514	114,312,626
1907, . . . . .	600,695,816	217,042	117,719,203
1908, . . . . .	602,400,874	219,774	116,982,089
1909, . . . . .	624,532,753	225,887	117,493,499
1910,† . . . . .	469,330,784	169,921	87,712,572
1911, . . . . .	683,362,717	246,021	123,659,082

\* Computed on the basis of five or six-cent fares collected.

† For nine months ending June 30, 1910.

## EARNINGS AND EXPENSES OF OPERATION.

The following table gives the gross earnings from operation, the operating expenses, the ratio of operating expenses to gross earnings, and the net earnings for each of the last nine years and for the nine months ending June 30, 1910:—



*Percentage of Operating Expenses to Gross Earnings, 1902-1911.*

YEARS.	Gross Earnings from Operation.	Operating Expenses.	Percentage of Expenses to Earnings.	Net Earnings.
1902, . . .	\$23,486,474	\$15,912,852	<b>67.75</b>	\$7,573,622
1903, . . .	25,540,811	17,519,367	<b>68.59</b>	8,021,444
1904, . . .	26,207,247	18,397,291	<b>70.20</b>	7,809,956
1905, . . .	27,041,291	18,269,259	<b>67.56</b>	8,772,032
1906, . . .	29,563,892	19,954,000	<b>67.49</b>	9,609,892
1907, . . .	30,557,862	20,689,668	<b>67.71</b>	9,868,194
1908, . . .	30,780,962	20,541,577	<b>66.73</b>	10,239,385
1909, . . .	31,956,007	20,915,728	<b>65.45</b>	11,040,279
1910,* . . .	24,032,236	16,191,893	<b>67.38</b>	7,840,343
1911, . . .	35,036,997	22,895,804	<b>65.34</b>	12,141,193

\* For nine months ending June 30, 1910.

The following tables give for each of the last nine years and for the nine months ending June 30, 1910, the average gross earnings, operating expenses, and net earnings from operation (1) per total mile of main track owned, (2) per car mile run and per passenger carried, — thus showing more in detail the changes from year to year in the earnings, cost, and net results of operation.

*Gross and Net Earnings from Operation per Mile of Main Track Owned, 1902-1911.*

YEARS.	AVERAGE PER MILE OF TRACK OWNED.		
	Gross Earnings.	Expenses of Operation.	Net Earnings.
1902, . . . . .	\$9,609	\$6,510	\$3,099
1903, . . . . .	10,124	6,944	3,180
1904, . . . . .	10,178	7,145	3,033
1905, . . . . .	10,300	6,959	3,341
1906, . . . . .	11,156	7,529	3,627
1907, . . . . .	11,485	7,776	3,709
1908, . . . . .	11,507	7,679	3,828
1909, . . . . .	11,899	7,788	4,111
1910,* . . . . .	8,892	5,991	2,901
1911, . . . . .	12,877	8,415	4,462

\* For nine months ending June 30, 1910.

*Gross and Net Earnings from Operation per Car Mile Run and per Passenger Carried, 1902-1911.*

YEARS.	AVERAGE PER CAR MILE.			AVERAGE PER PASSENGER.		
	Gross Earnings.	Expenses of Operation.	Net Earnings.	Gross Earnings.	Expenses of Operation.	Net Earnings.
	Cents.	Cents.	Cents.	Cents.	Cents.	Cents.
1902, . .	23.42	15.87	7.55	5.05	3.42	1.63
1903, . .	23.76	16.30	7.46	5.06	3.47	1.59
1904, . .	24.29	17.05	7.24	5.04	3.54	1.50
1905, . .	24.75	16.72	8.03	5.08	3.43	1.65
1906, . .	25.86	17.46	8.40	5.08	3.43	1.65
1907, . .	25.96	17.58	8.38	5.08	3.44	1.64
1908, . .	26.31	17.56	8.75	5.11	3.41	1.70
1909, . .	27.19	17.80	9.39	5.12	3.35	1.77
1910,* . .	27.39	18.45	8.94	5.12	3.45	1.67
1911, . .	28.33	18.51	9.82	5.13	3.35	1.78

\* For nine months ending June 30, 1910.

EMPLOYEES AND EQUIPMENT.

The number of persons employed by the street railway companies, and also the number of cars, vehicles and electric motors owned, are given in the following table for each of the last nine years and for the nine months ending June 30, 1910:—

*Employees and Equipment, 1902-1911.*

YEARS.	Employees.	Cars.	Other Cars and Vehicles.	Electric Motors.
1902, . . . .	15,292	7,144	2,577	12,504
1903, . . . .	15,823	7,403	2,644	13,611
1904, . . . .	16,519	7,383	2,728	13,870
1905, . . . .	16,479	7,341	2,761	14,167
1906, . . . .	16,909	7,336	2,874	14,492
1907, . . . .	18,181	7,539	2,900	15,626
1908, . . . .	17,267	7,618	2,890	16,649
1909, . . . .	17,575	7,546	2,834	16,526
1910,* . . . .	18,839	7,669	2,869	17,586
1911, . . . .	21,972	7,821	2,907	17,921

\* For nine months ending June 30, 1910.

## STREET RAILWAY ACCIDENTS.

The whole number of persons injured, in connection with street railway operation, as returned by the companies for the year ending June 30, 1911, was 6,963, of whom 106 received fatal injuries and 6,857 injuries not fatal.

The number of passengers injured was 5,116, of whom 15 were injured fatally.

The injuries to employees were 364 in all, 24 of which were fatal.

The number of injuries to travellers and others on the street was 1,483, of which 67 were fatal.

These figures include a very large number of injuries of a trivial character that have been returned by the companies.

In the following table the accidents for the nine months ending June 30, 1910, and those for the year ending June 30, 1911, are classified as above:—

*Summary of Accidents Reported June 30, 1910 and 1911.*

KILLED AND INJURED.	KILLED.		INJURED.		TOTALS.	
	1910.	1911.	1910.	1911.	1910.	1911.
Passengers, . . . .	9	15	3,721	5,101	3,730	5,116
Employees, . . . .	12	24	234	340	246	364
Other persons, . . . .	59	67	1,423	1,416	1,482	1,483
Totals, . . . .	80	106	5,378	6,857	5,458	6,963

Respectfully submitted,

EDWIN H. FENNO,

*Acting Statistician.*

## STREET RAILWAY BRIDGES.

*To the Massachusetts Board of Railroad Commissioners.*

GENTLEMEN:—I beg leave to submit the following brief statement with reference to the street railway bridges in this commonwealth.

During the past year the usual inspections which are necessary to keep our records of these bridges up to date have been made. There have been some new bridges built, some old ones have been replaced,

and the usual repairs have been made. The principal work has been done upon the Berkshire street railway. Twelve new bridges have been built on this line on the Canaan and South Egremont extensions.

Respectfully submitted,

GEO. F. SWAIN,  
Consulting Engineer.

## ISSUES OF STOCK AND BONDS.

### *Issues of Capital Stock.*

RAILWAY COMPANIES.	Date when Authorized.	Amount Authorized.
	<b>1911.</b>	
Boston and Worcester, . . . . .	February 21	\$397,200 <sup>1</sup>
Milford and Uxbridge, . . . . .	January 20	100,000 <sup>1</sup>
Northampton, . . . . .	January 7	300,000
Old Colony, . . . . .	March 30	292,000

<sup>1</sup> Preferred stock.

NOTE.— Issues of capital stock for the purpose of consolidation will be found in the appendix, under *Consolidations*.

### *Issues of Bonds.*

RAILWAY COMPANIES.	Date when Authorized.	Amount Authorized.
	<b>1911.</b>	
Boston Elevated, . . . . .	October 17	\$5,000,000
Boston and Northern, . . . . .	March 2	666,000
Concord, Maynard and Hudson, . . . . .	December 2	30,000
Middlesex and Boston, . . . . .	December 21	1,483,000

## GENERAL DISCUSSION.

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Hon. Walter Perley Hall, chairman of the Board from December 23, 1907, resigned August 9, 1911, having been appointed a judge of the superior court. Frederick J. Macleod, Esq., was appointed his successor and assumed the duties of the office August 16, 1911. Mr. Hall's former colleagues desire to place on record their appreciation of the sagacity and sound knowledge of the law, the inflexible sense of justice and high ideals of public service which he brought to the discharge of his official duties. They are gratified to know that these distinguished attainments will still be at the command of the commonwealth in the high position which he has been called upon to fill.

In its last annual report the Board made reference to the following resolves of the general court of 1910, creating joint boards, of which the railroad commissioners were members, for the study of important matters relating to transportation. These were

Chapter 58. To provide for investigation and report by the Board of Railroad Commissioners and the Boston Transit Commission, sitting jointly, relative to the construction and use of subways in the city of Boston. The joint board reported upon this chapter of the resolves upon the assembling of the general court of 1911.

Chapter 94. To provide for an investigation and report by the Boston Transit Commission relative to the construction of a subway from Park street to the South station in the city of Boston. By Chapter 139 the Board of Railroad Commissioners was directed to act with the Boston Transit Commission in this investigation. This report was submitted on January 4, 1911.

Chapter 97. To provide for an investigation and report by the Boston Transit Commission of certain proposed improvements in transportation in the city of Boston. Chapter 139 also directed this Board to act with the transit commissioners upon this matter. The report upon this investigation was submitted January 4, 1911.

Chapter 112. To provide for an investigation and report by the Board of Railroad Commissioners, the Board of Harbor and Land Commissioners, the Boston Transit Commission and the Metropolitan Park Commission, sitting jointly, relative to the construction of a tunnel between the North and South stations in the city of Boston. The report on this matter appears on pages 39 to 46 of the report (House 1550) submitted January 1, 1911.

Chapter 134. To provide for an investigation and report by the same joint board relative to the electrification of railroads in the metropolitan district. Majority and minority reports on this matter appear on pages 46 to 82 of the report (House 1550) submitted January 1, 1911.

Chapter 139. To provide for an investigation and report by the Board of Railroad Commissioners and the Boston Transit Commission, sitting jointly, relative to the improvement of transportation facilities in and around the city of Boston. The report upon this matter was submitted on January 14, 1911.

By the Acts of 1910, chapter 652, "An Act to validate the present outstanding securities of the New York, New Haven and Hartford Railroad Company and to provide for an examination of its property," the Board of Railroad Commissioners, the Tax Commissioner and the Bank Commissioner were created a commission to perform and execute the duties provided for in said chapter. The report of this commission was transmitted in a volume of five hundred and eighty-one pages on February 15, 1911.

By Resolves of 1909, chapter 113, constituting the joint board on metropolitan improvements, of which the members of this Board were a part, provision was made for a final report on or before the first day of January 1911. This final report

(House 1550) made a volume of one hundred and forty-five pages, with maps and illustrations.

In April the general court adopted an order directing the Board of Railroad Commissioners to ascertain if there had been a recent increase in the mileage rates charged for transportation of passengers by railroad corporations in this commonwealth, or a recent increase in the reckoning of mileage by such corporations, and if so whether or not such increases are legal and justifiable. The report on this order (House 2157), which was transmitted to the general court on July 12, 1911, appears in the appendix to this annual report.

On April 20, 1911, a copy of the joint order was transmitted to the Board directing it to investigate the means employed or that should be employed to protect from injury passengers in the stations of the Boston Elevated Railway Company, and especially to consider whether a railing or other form of protection is necessary to protect the passengers from falling into the pit at said stations. On May 31 the Board submitted a voluminous report upon this order (House 1953), the text of which will be found in the appendix to this annual report.

On May 14, 1911, the House of Representatives passed an order instructing this Board to investigate and hold public hearings relative to the lowering of the rate of dividend declared by the Boston and Maine Railroad. The report of the Board on this investigation (House 1954) was made on May 31 and will be found in the appendix to this annual report.

On May 19, 1911, the House of Representatives adopted an order directing the Board to investigate recent and proposed decreases in the transportation facilities on the Boston and Maine Railroad. The Board accordingly made a thorough investigation, reporting on June 10. The text of this report (House 1997) will be found in the appendix to this annual report.

On January 17, 1911, the House of Representatives passed an order directing this Board and the Boston Transit Commission, sitting jointly, to investigate the transit facilities of the town of Revere, the city of Chelsea and the town of Winthrop, particularly with reference to the relations of these municipali-

ties to the transit system of Greater Boston. The joint board made its report on March 17, it being printed as House Document No. 1639.

On March 14, 1911, the Senate adopted an order which was adopted by the House in concurrence March 16, directing this Board and the State Board of Health, sitting jointly, to investigate forthwith the supplying of pure drinking water and of sanitary drinking cups upon passenger cars in operation upon the railroads of the commonwealth. The report upon this investigation was submitted April 15, and appears as Senate Document No. 459.

On March 28, 1911, a resolve was passed for an investigation by this Board and the Boston Transit Commission, sitting jointly, as to certain petitions for the construction of a teaming tunnel under Boston harbor to East Boston. On May 13 the joint board reported, its conclusions being printed as House Document No. 1885.

On April 6, 1911, chapter 43 of the Resolves was approved, providing that this Board and the Boston Transit Commission, sitting jointly, consider and report whether between the termini for the east and west tunnel and subway as defined in section one of chapter 573 of the Acts of 1907, a route in part under or near Boylston street would be preferable to the route defined in said act, etc. The report of the Board, submitted May 1, appears as House Document No. 1852.

The following matters were referred to the Board of Railroad Commissioners for investigation and report in 1912:

Chapter 108, Resolves of 1911. To provide for an investigation as to certain improvements of the subway and transportation system in the city of Boston. By the terms of the resolve this investigation has been made by the Board and the Boston Transit Commission, sitting jointly, and their conclusions will appear in a special report.

The following four resolves and House order were referred to this Board for investigation and report:

Chapter 74. Resolve to authorize the Board of Railroad Commissioners to investigate the matter of equipping street railway cars with fenders and wheelguards.



Chapter 83. Resolve relative to suburban express offices at the North and South stations in the city of Boston.

Chapter 88. Resolve to provide for an investigation and a report by the Board of Railroad Commissioners relative to a highway bridge over the tracks of the Boston and Albany Railroad at Matthews street in the city of Chelsea.

Chapter 118. Resolve to provide for an investigation and a report concerning charges for commutation tickets by railroad corporations. The report on this investigation will be submitted, under the terms of the resolve, at a later date.

Order of the House of Representatives, dated June 29, 1911, relative to seats for passengers on railroad trains, and half-fares for those not furnished with seats.

#### FENDERS AND WHEELGUARDS.

Chapter 74 of the Resolves of 1911 reads as follows:

RESOLVE TO AUTHORIZE THE BOARD OF RAILROAD COMMISSIONERS TO INVESTIGATE THE MATTER OF EQUIPPING STREET RAILWAY CARS WITH FENDERS AND WHEELGUARDS.

*Resolved*, That the board of railroad commissioners is hereby directed to investigate the matter of the compulsory equipping of the cars of street railway companies with fenders and wheelguards; to investigate the operation of such fenders and wheelguards in this commonwealth and elsewhere; to examine the comparative merits of different fenders and wheelguards; and to report to the general court, not later than January fifteenth, nineteen hundred and twelve, the result of its investigation of the matters aforesaid and of any other matters relating to fenders and wheelguards for street railway cars, or to other means which the board may consider efficient and practicable for the prevention of accidents in the operation of the said cars. The board may expend for the purposes of this resolve a sum not exceeding fifteen hundred dollars. [*Approved May 13, 1911.*]

Fenders and wheelguards have been a subject of constant study by the Board since 1894. In that year an order was adopted by the general court directing the Board to investigate the subject of fenders for electric street cars. The result of this investigation and of the tests given may be found in the annual report of the Board of 1895 (pages 104-119; 177-186).

In 1895 the general court passed an act requiring companies

operating street railways in this commonwealth to equip their cars with such fenders and wheelguards as may be required by the Board. A copy of the regulations prescribed by the Board under this act will be found in its report of 1896 (pages 114-115).

In 1902 the general court adopted a resolve directing the Board to again investigate the subject of fenders, and the results of this further investigation may be found in its annual report of 1903 (pages 46-47).

In the annual report of 1904 to the general court the Board included the following discussion with regard to fenders:—

In its last annual report the Board expressed the belief that it is of far greater importance to adopt safeguards which will prevent cars from running into people than to make a choice between different devices for tripping or picking them up without injury. We were not satisfied that any fender had been devised which was entitled to use above and beyond all others. The Board did not intend to give the impression that it considered the fenders now used so eminently satisfactory that there is no need of experiment with new types. While we are still unwilling to name any particular fender as possessing supreme merit, we believe that it is the duty of every street railway management to offer a reasonable opportunity for testing the value of different new devices in connection with the equipment of new cars.

. . . . .

In providing a fender to meet requirements, the end to be attained is an instrumentality which will serve both to catch a person standing in front of a car and to pick one up if lying prostrate, without making such demands upon the motorman as to render less efficient his efforts to prevent collision, and without increasing the danger by reason of the existence of this attachment to the car.

In its annual report of 1907, in a discussion of the general subject of safety devices for street cars, the Board said:

The legislature of 1906, in order to enable the Board to complete an investigation of safety devices, authorized an appropriation to meet the necessary expense. With the means thus furnished an inquiry has been conducted in this and in other states and in foreign countries, records of experience have been consulted, opinions of experts obtained, public hearings given, and practical tests with fenders and wheelguards made.

There is today a very general scepticism among railway officials,

employees and persons having no interest either in companies or patents, as to the value of any fender that projects in front of a car. The feeling is widespread that instances in which such projecting attachments injure persons who might otherwise escape, or introduce new perils by distracting the attention of motormen or by increasing chances of derailment, go a great way toward counterbalancing the instances in which they prevent injury. This feeling has led to a greater interest in wheelguards.

The remarkable record of the wheelguard used for several years in Liverpool affords a striking argument for the use of that device rather than a projecting fender. For two years this wheelguard has been used in connection with the vast traffic of that city without a single instance of failure to accomplish its purpose. Of course the freedom from snow and ice and the smooth street surface found there favor the working of such a wheelguard.

The use of reserved spaces for street railways and the recent progress in perfecting the surfaces of our streets tend to make an effective wheelguard more available. There is reason to believe that with such a wheelguard the safety of those who are exposed to moving cars will depend upon proper devices for controlling speed, proper rules for operating cars and the alertness and skill of motormen, rather than upon the adoption of any type of fender. However, experience proves that fenders do occasionally prevent loss of life or limb, and in view of this fact, and with the possibilities of better results from improved devices, companies ought to equip street cars with fenders. It is simply a question as to what fenders shall be used.

The practical tests made at Newton with dummies shaped like human bodies of different sizes, covered twenty-seven different devices, and showed the uselessness of some of them and excellent results in the use of others. Those designed to trip and catch a person standing or crossing a track were more generally successful than those which were designed to pick up prostrate bodies.

There has been much hostile criticism of the Pfingst fender. The record of that fender shows many instances when persons have been saved from injury. This of course happens when accidents are prevented and therefore when public attention is seldom drawn to the fact through newspaper paragraph and never through police report or inquest. On the other hand, this fender has frequently failed to do its work. One reason for failures, particularly upon suburban lines, is carelessness in attaching the fender to the car, especially in respect to the height at which it is carried. Upon a large percentage of the surface cars in Boston the fender is useless from the fact that projecting parts of the car so reduce the available area of the fender as to leave no room for catching or holding a person who falls or is thrown upon it.

Assuming that the legislature had in view an investigation that will enable the Board to require the use of such devices as shall seem to be suitable, no opinion is expressed at this time upon the comparative merits of different fenders. Street railway companies have been asked to present for approval on or before the first day of May such type of fender and wheelguard as they may desire to use.

A record of the tests given under the direction of the Board in Newton, to which reference is made in the foregoing, may be found in the annual report of 1907 (pages 204-222). Subsequently to these tests the Board, under date of May 21, 1907, issued the following circular:

*Circular to Street Railway Companies.*

In its annual report of 1904 the Board expressed a lack of confidence in the car fenders and wheelguards then in use upon our street railways and advised experiment with new types. While companies gave some attention to this suggestion during the year that followed, there was manifest on the whole a general indisposition toward any change in equipment. The Board then took up the matter, and having secured an appropriation from the legislature of 1906 completed in December last an investigation of fenders and wheelguards at home and abroad, concluding the inquiry with a series of tests in Newton. Companies were thereupon requested to give notice to the Board, on or before the first day of this month, of their preference in respect to these safeguards. That time, subsequently extended two weeks, having now expired, the Board issues the following statement of views and requirements.

*Pfingst Fender.*

In 1895, after an exhaustive inquiry, the then members of this Board issued a circular stating their conclusions and defining the general principles which should govern the equipment of street cars with safety devices. Although the Pfingst fender was not recommended as better than others, it was one of a class of fenders which under this circular companies could use and was the one which they very generally selected.

As stated in our last report, "The record of the Pfingst fender shows many instances when persons have been saved from injury. This of course happens when accidents are prevented and therefore when public attention is not drawn to the fact through newspaper paragraph, police report or inquest. On the other hand, this fender has frequently failed to do its work. Upon a large percentage of the surface cars in Boston the fender is useless from the fact that projecting parts of the car so reduce the available area of the platform as to leave no room for catching or holding a person who falls or is thrown upon it."

Notwithstanding the multiplication of patents and the ingenuity of experts we know of no device in use or exhibited through sketch or model that, attached to a street car moving at varying speed can be relied upon to always trip a standing person or pick up a prostrate body without injury. It must remain unsafe for young children to play in streets that are occupied by railway tracks, or to cross them unattended, and unsafe for older persons to step carelessly in front of cars. Meanwhile there is need of more effective car fenders and wheelguards. Although applications for the most part call for a further endorsement of the Pfingst fender, we do not share the confidence expressed in it and cannot approve it to the exclusion of other devices.

#### *Automatic Safeguards.*

The newer devices are as a rule automatic. In passing upon them it is necessary to bear in mind the distinguishing characteristics of the service upon various lines of railway. For example, we believe it would be hazardous to attach to the front ends of high speed interurban cars, operated under the conditions commonly met, automatic fenders which might upon occasion so fall or be thrown in the way of the car as to cause a derailment. On the other hand, there would be no such hazard in the use of an automatic wheelguard upon cars as ordinarily operated in city streets. The Board will therefore require an experiment with these wheelguards though at times in winter snow and ice will undoubtedly interfere with their success.

#### *Drop Devices.*

A fender or wheelguard that must be dropped by the motorman in case of threatened accident is open to the criticism that it complicates his duties at a time when he ought to give paramount attention to the stopping of the car. On the other hand, this device possesses an advantage over the automatic in that it is dropped only when needed and by intelligent action, and so can be carried at a height such as to eliminate risks from contact with obstructions. A very important change in this type of fender or wheelguard is that by which the application of the emergency brake itself drops it into position. A trial of these devices will also be required.

#### *Liverpool Lifeguard.*

Climate and roadbed make it possible in Liverpool to use a guard which is carried so close to the surface of the track as to be very successful in its one purpose of preventing bodies from passing under the wheels. While weather and roadbed construction prohibit upon many of our railways the use of a guard carried so close to the ground, wheelguards have been brought to our notice which possess some of the

features of the Liverpool device and which are apparently capable of good work. The Board will require the use of these wheelguards upon selected cars.

#### *Rigid Fenders.*

Rigid devices projecting in front of cars are suited to the conditions upon some of our railways but this type ought not to be confined to the straight platform fender. Whenever any such fender is hereafter used it must be attached to the car at a height of not less than twelve inches above the track so that it will pass over a prostrate body without maiming or injury. Among fenders of this type are several designed to make it sure that a person tripped and falling upon them will remain there until the car is stopped. Lines of cars will be specified upon which these devices are to be used.

#### *Conclusion.*

It is the purpose of the Board in the enforcement of these views to secure actual experience with different types of fenders and wheelguards that promise results better than those attained in the past.

Companies must complete designated changes in equipment on or before the first day of December, 1907, unless prevented by reasons beyond their control, in which case the necessary additional time will be allowed.

The details of the new equipment will be taken up with the Boston Elevated, the Boston and Worcester, the Boston and Northern and Old Colony, and with the Worcester, Springfield and Berkshire systems on Monday, the twenty-seventh day of May, at half-past ten o'clock, and with other companies at a time to be hereafter named.

The plan of action proposed in this circular is of course subject to any change which may be rendered necessary should the legislature in the measure now pending before it restrict the power of the Board.

In the annual report of the Board of 1908 to the general court in a discussion of the subject of fenders and wheelguards the following appears:

During the past year street railway companies, at the suggestion of the Board, have installed for experimental use various types of fenders and wheelguards on certain lines in different parts of the state. The efficiency of these devices can best be determined from the results of their use in actual tests in saving life and limb; such tests have been too infrequent to enable the Board to reach any definite conclusion. One of the results of this investigation, however, has been to eliminate from the field many so-called fenders and wheelguards on account of their absolute inefficiency.

The Board deems it necessary to reiterate its views that no particular fender or wheelguard has yet been found the adoption of which can be recommended in preference to all others, and that the greatest safeguard in street railway operation comes from having the cars at all times under such control as to avoid striking a person, rather than depending upon any device to save him from harm after having been struck by a moving car.

The Board will continue to investigate and thoroughly test all meritorious fenders and wheelguards, and will insist upon the more general use of any device found to possess sufficient merit to warrant its adoption.

To assist the Board in determining the efficiency of these devices, it is expected that companies will keep a record of all tests through their use.

In 1909 the Board in its annual report said:

In its annual report for 1907 the Board requested street railway companies to keep a record of all tests obtained through the use of fenders and wheelguards during the year 1908. Reports of such tests have recently been submitted. A study of them convinces the Board that the companies have in good faith endeavored to ascertain the merits of the various devices which have been put in use, but the number of instances where persons have come in contact with them have been so few that the information presented is of very little value in determining the superiority of any one device.

The Board recommends that street railway companies continue the experimental use of various fenders and wheelguards and that a record be kept during the coming year, similar to that submitted for 1908, in order to assist in a determination as to their further use and efficiency. .

The following circular, revising the regulations for the equipment of street railway cars with fenders and wheelguards, was issued under date of September 15, 1910:

1. All cars operated on surface lines by street railway companies (excepting cars run only as trailing cars) shall be equipped with fenders; and all cars operated on surface lines shall be equipped with wheelguards.

2. In the opinion of the Board the rigid part of all fenders should be, as nearly as practicable, twelve inches above the rail; and the height of wheelguards should be, as nearly as practicable, four inches above the rail.

3. Each street railway company shall submit to the Board, on or before December 1, 1910, a blue-print, sketch or photograph showing

the types of such fenders and wheelguards, attached to a car, as it desires to use, together with the height of same above the rails, and accompanied by a petition requesting the approval of the same by the Board.

In compliance with the above circular, street railway companies have submitted various types of fenders and wheelguards for the Board's approval. A list of the devices thus approved appears in the appendix to this annual report.

Twelve different types of fenders and eleven different types of wheelguards are in use in this commonwealth. New devices are being examined and tested by the Board from time to time and the co-operation of the managements of street railway companies is much appreciated.

In accordance with the resolve, the Board has visited many cities, both in this country and abroad, for the purpose of obtaining the fullest information as to the various types of fenders and wheelguards in use, and the conditions under which they are maintained and operated.

#### *Paris.*

The cars of surface lines in Paris are operated at a low rate of speed, and are not equipped with protruding fenders. They are equipped with various types of wheelguards, both automatic and rigid. The condition of the surface of streets and the rate of speed permit the adjustment of these wheelguards at a point close to the rails.

#### *London.*

The London County Council operates surface cars over the streets of London. These cars are not equipped with protruding fenders, but have automatic wheelguards. The maximum speed allowed by the board of trade is sixteen miles per hour in certain thoroughfares; the average speed, including stops, is eight and one-half miles per hour. The excellent condition of the surface of streets, the rate of speed at which cars are operated and the absence of great accumulations of snow and ice permit the adjustment of wheelguards within three inches of the rail. The surface cars operated in this city are of the double-deck type.



*Newcastle on Tyne.*

The tramways of Newcastle are operated by the city corporation. The equipment of the system consists of both double and single-deck cars; these cars are not equipped with protruding fenders, but have automatic wheelguards. The maximum speed on the system is sixteen miles per hour, the average speed being about eight miles per hour. The condition of the surface of streets and the rate of speed at which cars are operated permit the adjustment and maintenance of these wheelguards at three inches above the rail.

*Edinburgh.*

The cars of the tramway system of Edinburgh are of the double-deck pattern. They are not equipped with protruding fenders, but are provided with wheelguards. The average speed is about eight miles per hour. The condition of the surface of streets and the rate of speed permit the adjustment and maintenance of these wheelguards very close to the rail.

*Glasgow.*

The cars operated on the surface lines in Glasgow are of the double-deck pattern, and are not equipped with protruding fenders, but have automatic wheelguards. The average rate of speed is between seven and eight miles per hour. The condition of the surface of streets and the rate of speed permit the adjustment and maintenance of the wheelguards within two or three inches of the rail.

*Liverpool.*

The cars of the surface lines of Liverpool are operated by the Liverpool Corporation, and are of the double-deck design. They are not equipped with protruding fenders. The type of wheelguard used is of the rigid pattern and surrounds the trucks. The condition of the surface of streets, the low rate of speed and the freedom from ice and snow permit the adjustment and maintenance of these guards at a height of two inches above the rail.

*Montreal.*

The management of the Montreal Street Railway Company has decided to remove all protruding fenders and equip its cars with automatic wheelguards; seventy-five per cent of the cars are now so equipped.

*Toronto.*

The cars of the Toronto Street Railway Company are equipped with protruding automatic fenders and rigid wooden wheelguards. About fifty per cent of the cars are further equipped with a wire mesh attached to the body of the car, extending to a point about four inches from the street surface, for the purpose of preventing persons or other objects coming in contact with the wheels.

*Buffalo.*

The cars of the International Railway Company, operating entirely over city lines in Buffalo (with the exception of about thirty new cars recently put in operation which have automatic wheelguards) are equipped with a projecting rigid platform fender. A portion of the cars of this system are equipped with rigid wooden wheelguards. The remainder have no wheelguards.

There are several high speed interurban lines operating in the city. The cars used on these lines are not equipped with fenders, but are provided with cowcatchers, and wheelguards are not generally used.

*Rochester.*

The cars of the New York State railways, operated entirely over city lines in Rochester, are equipped with a protruding rigid platform fender. A portion of the cars of both the city and high speed lines are provided with rigid wooden wheelguards. The remainder have no wheelguards.

*Syracuse.*

The cars of the Syracuse Rapid Transit Railway Company, operating over city lines in Syracuse, are equipped with two kinds of protruding fenders, one manually controlled, the other

rigid. There are several high speed interurban lines operating in the city. A portion of the cars of both the city and high speed lines are equipped with a rigid wooden wheelguard, and the remainder are without wheelguards.

### *Utica.*

The cars of the Utica and Mohawk Valley Railway Company, operating over the city lines in Utica, are equipped with a protruding platform fender, manually controlled. The high speed interurban lines operated in the city are provided with cowcatchers. A portion of the cars of both the city and high speed lines are equipped with a rigid wooden wheelguard; the remainder have no wheelguards.

### *Albany.*

The cars of the United Traction Company operating over the city lines in Albany are equipped with a protruding platform fender, manually controlled. The high speed interurban lines in Albany are equipped with cowcatchers. A portion of the cars of both the city and high speed lines are equipped with a rigid wooden wheelguard. The remainder have no wheelguards.

### *Philadelphia.*

Protruding fenders on the cars of the Philadelphia Rapid Transit Company, which operates over surface lines in the city of Philadelphia, are being removed, and automatic wheelguards substituted therefor.

### *Pittsburgh.*

The cars of the Pittsburgh Railways Company operating the various lines in the city are equipped with protruding fenders, but are not provided with wheelguards.

### *Cleveland.*

The cars of the Cleveland Street Railway Company, which operates the various lines in Cleveland, are equipped with protruding fenders, and are not equipped with wheelguards.

*Indianapolis.*

There are several lines of cars entering the city of Indianapolis. The cars of the city lines are equipped with protruding fenders. One of the high speed lines is equipped with a rigid protruding fender and the other high speed lines are provided with cowcatchers. None of the lines entering the city are equipped with wheelguards.

*St. Louis.*

The cars of the St. Louis and Suburban Railway Company, which operates within the city of St. Louis, are not equipped with protruding fenders, but are provided with automatic wheelguards. The cars operated over the high speed lines of that system are equipped with cowcatchers, and do not have wheelguards.

The cars of the United Railways Company are equipped with protruding fenders and automatic wheelguards. The Illinois Traction Company is a high speed system and its cars are equipped with cowcatchers and are not provided with wheelguards.

*Chicago.*

The various companies operating cars over surface lines in the city of Chicago are removing protruding fenders and are equipping the cars with automatic wheelguards. The cars operated over high speed lines of the Aurora, Elgin and Chicago Railway Company are equipped with cowcatchers and are not provided with wheelguards. Cars of the surface lines of this company entering Elgin are equipped with wheel-fenders of the V-shape type; those entering Aurora are to be equipped, at the request of the city authorities, with automatic wheelguards.

*New York City.*

On certain surface lines in New York city cars are equipped with both fenders and automatic wheelguards and other lines are equipped with automatic wheelguards only.

*Washington.*

The cars operated in this city are equipped with protruding fenders and wheelguards.

*Portland, Me.*

The cars operated in Portland are not provided with protruding fenders. A portion of the cars are equipped with a rigid plank wheelguard.

The Board has made inquiry of the railroad commissions, or similar authorities, in the various states of the Union concerning the statutes in force or regulations adopted relative to the use of fenders and wheelguards on electric railways.

The information received shows that few states have specific statutes governing the use of fenders and wheelguards, a large majority of the states having passed no legislation on the subject. In a number of the states of this latter class the railroad commissions, under their general powers, or the municipal authorities, by ordinance, exercise jurisdiction in the matter.

From information submitted by managements of street railways in this state the Board finds that the number of persons coming in contact with fenders and wheelguards during the period from January 1, 1911, to December 20, 1911, was 378, of whom 45 were fatally injured. For the year ending June 30, 1911, there were about 7,800 box and open cars in use in this commonwealth for the transportation of passengers; the total number of car miles run was 123,659,082, making an average of 15,853 miles per car.

A series of practical tests of such fenders and wheelguards as were presented to the Board for the purpose were conducted on October 10 and 19 and November 2, 1911. These tests, in which dummies were used, were given under the most favorable conditions, the track being on a tangent and filled with macadam to the top of the rail. The following is a record of the tests:

*Devices tested October 10, 1911.*

## WORCESTER DOUBLE ACTING FENDER.

[WORCESTER RAILWAY SUPPLY COMPANY, WORCESTER, MASS.]

*On double truck car No. 288.*

This device is a projecting automatic fender, and consists of a buffer and cradle supported on hangers from the sills of car.

The cradle is constructed of square bars with angle iron ends and steel strips. On the front and heel of the cradle are two steel bars covered with rubber. The cradle is held in normal position by pawls on either side, and is actuated by two heavy springs, one at either side.

The front of cradle is depressed when it strikes an object, releasing the top pawl. Then the springs instantly revolve it so that the front piece is carried upwards and back where it is locked by the bottom pawl. It is intended that the cradle revolving will carry the object back to the buffer and retain it in the cradle. At the same time the front of the cradle is moving upward and back the heel moves downward and forward, and is locked in place with edge close to the roadbed, and is intended to prevent an object from passing under should the cradle fail to pick it up.

The buffer is made of steel strips and extends about 15 inches above the bumper of car.

*Test No. 1.* A small dummy standing in the middle of the track was picked up by the cradle and remained in the same, with feet hanging over the front. The fender tripped automatically. The speed of the car was about eight miles per hour.

*Test No. 2.* A small dummy standing in the middle of the track was picked up and remained in the cradle. The fender tripped automatically. The speed of the car was about nine miles per hour.

*Test No. 3.* A small dummy standing on the track near one rail was picked up and remained in the cradle, one foot hanging over front. The fender tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 4.* A small dummy standing on the track near one rail was picked up and remained in the cradle. The fender tripped automatically. The speed of the car was about thirteen miles per hour.

*Test No. 5.* A large dummy standing in the middle of the track was picked up and remained in the cradle. The fender tripped automatically. The speed of the car was about twelve miles per hour.

*Test No. 6.* A large dummy standing on the track near one rail was picked up and remained in the cradle, with feet and legs dragging over front. The fender tripped automatically. The speed of the car was about twelve miles per hour.

Withdrawn in good condition.

## MYLOT DROP FENDER.

*On double truck car No. 314.*

This device is a projecting platform extending about two feet six inches in front of car, supported by side brackets, adjusted in such manner as to allow the forward edge of platform to be dropped to the roadbed by a tilting motion and under the control of the motorman.

The platform is constructed with angle iron frame, with cross strips of steel.

When not in use the fender can be pushed under the car platform. The fender was adjusted about six inches above the rail.

*Test No. 1.* A large dummy standing in the middle of the track, when struck, fell on fender, but rolled off in front and went under as far as forward motor. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 2.* A small dummy standing in the middle of the track was knocked down and went under fender as far as the lifeguard on forward truck, as the fender could not be tripped by the motorman. The speed of the car was about eight miles per hour.

*Test No. 3.* A small dummy standing in middle of the track fell on fender and remained with feet dragging in front, as the fender could not be tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 4.* A small dummy standing in the middle of the track, when the fender was partly tripped by the motorman, fell on the fender and remained with feet dragging in front. The fender was pushed partly in when it struck the dummy. The speed of the car was about ten miles per hour.

*Test No. 5.* A small dummy lying diagonally across the track with feet toward the car was pushed along in front of fender. The fender was tripped by the motorman. The speed of the car was about nine miles per hour.

*Test No. 6.* A small dummy lying lengthwise of the track, feet toward the car, was pushed in front of the fender for a short distance, then went under as far as the lifeguard on the forward truck. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

Withdrawn in good condition.

## LIBBY PROJECTING FENDER.

[BOSTON ELEVATED RAILWAY COMPANY.]

*On Boston Elevated railway car No. 5204.*

The device is a projecting scoop fender, constructed with pipe frame attached by side arms to car sills, the front edge of platform being

held the desired height above the roadbed by a chain fastened well up on the car dash at either side and attached to side of pipe frame near the front. A mesh of flat steel strips forms the bed of the fender.

It extends about three feet in front of the car and the front edge is about five inches above the rail. When not in use it folds against end of car.

*Test No. 1.* A small dummy standing in the middle of the track, when struck, fell on fender and remained thereon. The speed of the car was about ten miles per hour.

*Test No. 2.* A small dummy standing in the middle of the track, when struck, fell on fender and remained thereon. The speed of the car was about ten miles per hour.

*Test No. 3.* A large dummy standing in the middle of the track, when struck, fell against dasher of car with feet in fender and remained thereon. The speed of the car was about ten miles per hour.

*Test No. 4.* A large dummy lying lengthwise of track, head toward the car, was picked up by fender; the head and shoulders went over back edge, but body remained on fender. The speed of the car was about fourteen miles per hour.

*Test No. 5.* A small dummy lying lengthwise of track, feet toward the car, passed under the fender and lay under lifeguard of forward truck when the car stopped. The speed of the car was about twelve miles per hour.

Withdrawn in good condition.

Car No. 5204 is one of the Boston Elevated railway cars operating in Boston; the trucks are fitted with wooden lifeguards that extend around the entire truck and are about three and one-half inches from the roadbed. Three trials were made of this lifeguard with a small dummy as follows:

*Test No. 1.* A small dummy lying in the middle of the track, with feet toward the car, was pushed along in front of the lifeguard, with head partly under same. The speed of the car was about twelve miles per hour.

*Test No. 2.* A small dummy lying squarely across one rail, with feet inside, was pushed along in front of the lifeguard, with one leg and one arm under same. The speed of the car was about fourteen miles per hour.

*Test No. 3.* A small dummy lying lengthwise of track just inside one rail, with head toward car, was pushed to one side clear of car. The speed of the car was about fourteen miles per hour.

Withdrawn in good condition.



## CORMIER REVOLVING FENDER.

[REUBEN S. CORMIER, NEW BEDFORD, MASS.]

*On double truck car No. 324.*

The device consists of a wheel about five feet in diameter supported from the centre of the header of car platform by means of a large bolt which passes through centre of wheel, which brings about one-half of wheel in front of the car. The outside circumference of the wheel is of heavy canvas, on a steel frame, and is kept in shape by means of steel rods (like the spokes of a wheel). The outside rim is about six inches wide and was hung so as to run four inches above the roadbed. The design of this fender is intended to be such as to push a body from the track. It revolves freely in either direction. When not in use the fender is intended to be pushed under car platform.

*Test No. 1.* A small dummy lying in the centre of track, with head toward the car, was pushed to one side, but not clear of track. The forward wheel of car passed over one arm. The speed of the car was about six miles per hour.

*Test No. 2.* A small dummy lying in the centre of track, with feet toward car, was pushed to one side clear of track. The speed of the car was about ten miles per hour.

*Test No. 3.* A small dummy standing in centre of track was picked up on the fender and remained thereon. The speed of the car was about twelve miles per hour.

*Test No. 4.* A large dummy standing in centre of the track was picked up on the fender and remained thereon. The speed of the car was about twelve miles per hour.

*Test No. 5.* A large dummy lying squarely across the track was run over by the fender and lay under motor of forward truck when the car came to a stop. The speed of the car was about twelve miles per hour.

*Test No. 6.* A large dummy lying squarely across the track was run over by the fender and lay under motor of forward truck when the car came to a stop. The speed of the car was about twelve miles per hour.

Withdrawn in good condition.

## MOONEY PROJECTING FENDER.

[ARTHUR F. MOONEY, EAST BOSTON, MASS.]

*On double truck car No. 324.*

The device consists of a platform extending three feet in front of the car, with a buffer five feet high extending perpendicularly at the back. It is constructed of pipe frame with steel strap mesh on platform and canvas strips on buffer.

The fender is supported from side sills of car platform by means of

angle irons and is hung about two inches above the rail. When not in use the fender folds against end of car.

*Test No. 1.* A small dummy standing in the middle of track was picked up and remained on fender. The speed of the car was about ten miles per hour.

*Test No. 2.* A small dummy standing in the middle of track was picked up and remained on fender. The speed of the car was about twelve miles per hour.

*Test No. 3.* A small dummy standing in the middle of track was picked up and remained on fender. The speed of the car was about twelve miles per hour.

*Test No. 4.* A small dummy lying squarely across one rail, with feet inside, was run over by the fender and lay under car in front of life-guard on forward truck. The speed of the car was about twelve miles per hour.

The fender was put out of commission on account of the angle iron supports becoming bent and was withdrawn.

#### TIGHE PROJECTING DROP FENDER.

[JAMES T. TIGHE, BOSTON, MASS.]

##### *On double truck car No. 320.*

The device consists of a platform extending three feet in front of car and a buffer at the back three feet high.

The platform frame is hinged to the side arms and the upright buffer is hinged to the frame of the platform so as to allow the fender to fold against the end of car when not in use. Folding braces connect the platform and buffer frames.

Side frames extend backward and are attached to side sills of car.

The platform is constructed of pipe frame with steel straps.

The fender is operated by the motorman and in normal position is five inches above the rail.

*Test No. 1.* A small dummy standing in middle of track was picked up and remained on the fender. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 2.* A small dummy standing in the middle of track was picked up and remained on the fender. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 3.* A small dummy lying diagonally across track, with feet toward the car, was pushed along in front of the fender, one arm under same. The fender was tripped by the motorman. The speed of the car was about eight miles per hour.

*Test No. 4.* A small dummy lying diagonally across one rail, with head toward car, was pushed along a short distance, then fender passed over it, and dummy lay under motor of forward truck when the car

came to a stop. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 5.* A small dummy lying lengthwise in middle of track, with feet toward the car, was picked up and remained on the fender with head dragging in front. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 6.* A large dummy lying squarely across the track was picked up and remained on the fender. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 7.* A large dummy lying diagonally across track, with feet toward the car, was picked up and remained on the fender. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 8.* A large dummy lying diagonally across track, with feet toward the car, was picked up and remained partly on the fender, with feet and legs dragging in front. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

Withdrawn in good condition.

#### KOCH PROJECTING DROP FENDER.

[W. C. KOCH, DEDHAM, MASS.]

##### *On double truck car No. 294.*

This device consists of a platform extending three and one-half feet in front of car, with buffer at back three feet high. The construction is angle iron frame with steel strap mesh.

It has an automatic trip by contact with the front of fender platform and also a manually operated trip. The platform is about four inches above the rail.

*Test No. 1.* A small dummy lying lengthwise in middle of track, with head toward car, was picked up and remained on fender with feet dragging in front. The fender was tripped by the motorman. The speed of the car was about twelve miles per hour.

*Test No. 2.* A small dummy lying lengthwise in middle of track, with feet toward car, was picked up and remained on the fender with head dragging in front. The fender was tripped by the motorman. The speed of the car was about twelve miles per hour.

*Test No. 3.* A large dummy lying squarely across track was picked up and remained on fender. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 4.* A large dummy lying squarely across track was pushed along in front of fender, one arm under same. The fender was not tripped by the motorman. The speed of the car was about twelve miles per hour.

Fender was disabled in last test and was withdrawn.

*Devices tested October 19, 1911.*

## CARRAHER PROJECTING DROP FENDER.

[T. J. CARRAHER, HEATH, MASS.]

*On double truck car No. 314.*

This device consists of a platform extending three and one-half feet in front of car, constructed of iron frame with steel straps forming bed of same. Near the front of platform is a light frame about one foot wide with steel straps across. This frame is supported on top of platform and is designed to keep a body from rolling off the fender after being picked up.

The fender is supported by brackets from side sills of car and can be folded up when not in use. This fender is designed to have a dashboard protector, but this was not attached on account of being lost in transit.

The device may be used as a rigid or automatic fender.

*Test No. 1.* A small dummy standing in the middle of the track was picked up and remained on the fender, one foot partly under front of same. The speed of the car was about twelve miles per hour.

*Test No. 2.* A small dummy standing in the middle of the track was picked up and remained on the fender, one foot under same. The speed of the car was about ten miles per hour.

Tests 1 and 2 were as a rigid fender.

*Test No. 3.* A small dummy lying diagonally across one rail, with feet toward car, was picked up and remained on the fender. The fender was tripped by the motorman. The speed of the car was about eight miles per hour.

*Test No. 4.* A small dummy lying diagonally across one rail, with feet toward car, was pushed to one side. The lifeguard of truck struck the dummy and knocked it clear from the track. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 5.* A small dummy lying squarely across the track was pushed along in front of fender. The fender was tripped by the motorman. The speed of the car was about twelve miles per hour.

*Test No. 6.* A large dummy lying squarely across track was pushed along in front of fender. The fender was tripped by the motorman. The speed of the car was about twelve miles per hour.

*Test No. 7.* A large dummy lying lengthwise in middle of track, with head toward car, was pushed along in front of the fender, one arm under. The fender was tripped by the motorman. The speed of the car was about twelve miles per hour.

*Test No. 8.* A small dummy standing in the middle of the track was picked up and remained on fender with head and shoulders over back of same. The fender was not tripped. The speed of the car was about ten miles per hour.

*Test No. 9.* A small dummy standing in the middle of the track was picked up and remained on fender. The fender was not tripped. The speed of the car was about twelve miles per hour.

Withdrawn in good condition.

#### SALEM PROJECTING FENDER.

[I. H. CALIGA, SALEM, MASS.]

##### *On double truck car No. 310.*

This device consists of a triangular pipe frame with a chain mesh from frame to top of dashboard protector, supported by brackets attached to header of car platform. The height of the front of fender platform is adjusted by means of two side chains from a point near front to top of side frame, and these chains tend to form a basket to retain body falling inside them. The shape of fender is designed to have a shearing effect and to push a body from the track. It is adjusted about five inches above the rail.

*Test No. 1.* A large dummy standing in the middle of the track was picked up and remained in fender; the head struck the dasher and broke the glass in the headlight. The speed of the car was about nine miles per hour.

*Test No. 2.* A large dummy standing in the middle of the track was picked up and remained in fender, the head striking dasher. The speed of the car was about ten miles per hour.

*Test No. 3.* A large dummy standing near one rail just inside, when struck, fell against dasher, then over side of fender and wheels passed over both feet. The speed of the car was about ten miles per hour.

*Test No. 4.* A small dummy standing near one rail just inside, when struck, fell against dasher, then over side of fender, the side of the trucks striking body but the wheels not passing over it. The speed of the car was about ten miles per hour.

*Test No. 5.* A small dummy standing near one rail just inside, when struck, fell clear of car and was struck by end of lifeguard of forward truck, but was not run over. The speed of the car was about ten miles per hour.

*Test No. 6.* A small dummy standing near one rail just inside, when struck, was thrown to one side and was struck by end of lifeguard on forward truck, but was not run over. The speed of the car was about ten miles per hour.

*Test No. 7.* A small dummy standing near one rail just inside, when struck, was thrown to one side and one leg was caught under lifeguard of forward truck. The speed of the car was about ten miles per hour.

*Test No. 8.* A small dummy standing in the middle of the track was picked up and remained in fender. The speed of the car was about ten miles per hour.

Withdrawn in good condition.

## GAUTHIER PROJECTING FENDER.

[J. GAUTHIER, WALTHAM, MASS.]

*On double truck car No. 290.*

This device is a remodeled Pfingst fender, the slides being removed, the extension on back of side frames cut off, and platform hinged to drawbar rest, the front being held at the desired elevation by means of chains from side sills of car to front of fender platform. The fender is ten inches above the rail at the front and twelve inches at the back. When not in use it folds up and is held in place by a hook.

*Test No. 1.* A small dummy standing in middle of track, when struck, fell on fender; the feet catching under front of same dragged the body off, and fender passed over it. The speed of the car was about ten miles per hour.

*Test No. 2.* A large dummy standing in the middle of the track, when struck, fell against dasher, then on fender and remained thereon, feet dragging in front. The speed of the car was about ten miles per hour.

*Test No. 3.* A large dummy standing near one rail just inside, when struck, fell against dasher, then over side of fender clear of the car. The speed of the car was about ten miles per hour.

*Test No. 4.* A large dummy standing near one rail just inside, when struck, fell against dasher, then across corner of fender and remained thereon, feet dragging in front. The speed of the car was about ten miles per hour.

On this same car was a fender of the same design, except that in the place of the chains at each side for supporting the front of the platform it had a folding brace at each side, designed to hold the front of fender down and to keep it from riding over a body. This was tested as follows:—

*Test No. 1.* A large dummy standing near one rail just inside, when struck, fell on fender and remained thereon, feet dragging in front. The speed of the car was about ten miles per hour.

*Test No. 2.* A large dummy standing in the middle of the track, when struck, fell on fender and remained thereon, feet and legs under edge. The speed of the car was about twelve miles per hour.

*Test No. 3.* A small dummy standing in the middle of the track, when struck, fell on fender and remained thereon. The speed of the car was about twelve miles per hour.

*Test No. 4.* A small dummy standing near one rail just inside, when struck, fell on fender and remained thereon, feet dragging in front. The speed of the car was about twelve miles per hour.

On this car was also a V-shaped steel lifeguard attached rigidly to the truck. It was tested as follows:—

*Test No. 1.* A large dummy lying squarely across the track was pushed along, one arm under. The speed of the car was about ten miles per hour.

*Test No. 2.* A small dummy lying squarely across the track went under the lifeguard and was under motor of the forward truck. The speed of the car was about twelve miles per hour.

*Test No. 3.* A small dummy lying diagonally across one rail, with head toward car, went partly under the guard. The speed of the car was about twelve miles per hour.

A straight steel wheelguard on the same car, four inches above rail, was tested as follows:—

*Test No. 1.* A large dummy lying squarely across the track was pushed along in front of guard. The speed of the car was about ten miles per hour.

*Test No. 2.* A large dummy lying squarely across the track was pushed along in front of guard. The speed of the car was about ten miles per hour.

#### TUCKER PROJECTING DROP FENDER.

[W. P. TUCKER, BROOKLYN, N. Y.]

##### *On double truck car No. 324.*

This device consists of a frame work of pipe with net work of wire extending from top of frame, which is above bumper of car, to front of frame. This wire net is loosely hung so as to form a basket designed to hold a body. It extends three feet and three inches in front of car when down, and is carried about eight inches above the rail. It is operated by the motorman.

*Test No. 1.* A large dummy standing in the middle of the track was picked up and remained in fender, feet hanging over one corner. The head of the dummy struck the headlight, breaking the glass. The fender was tripped by the motorman. The speed of the car was about nine miles per hour.

*Test No. 2.* A large dummy standing near one rail, just inside, was picked up and remained in fender. The fender was tripped by the motorman. The speed of the car was about nine miles per hour.

*Test No. 3.* A large dummy standing near one rail, just inside, was picked up and remained in fender, one leg dragging over side. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 4.* A small dummy lying diagonally across track, with head toward car, was picked up and remained in fender. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 5.* A small dummy near the middle of the track, in a stooping position, feet and head on ground, was picked up and remained

partly in fender, head and shoulders dragging in front. The fender was tripped by the motorman. The speed of the car was about twelve miles per hour.

*Test No. 6.* A small dummy lying diagonally across track, with head toward car, was pushed along in front of fender, one arm under. The fender was tripped by the motorman. The speed of the car was about twelve miles per hour.

*Test No. 7.* A small dummy lying diagonally across track, with head toward car and near one rail, was pushed along a short distance; then fender passed over it, and the dummy lay under lifeguard of forward truck when car stopped. The fender was tripped by the motorman. The speed of the car was about twelve miles per hour.

Withdrawn in good condition.

#### PFINGST PROJECTING DROP FENDER.

[MATHIAS HART COMPANY, BOSTON, MASS.]

##### *On double truck car No. 314.*

This device consists of a platform and buffer with manual trip attachment. It has a frame of angle iron with steel straps and bevelled wood strip with iron shoes on front. When not in use it pushes under the car.

*Test No. 1.* A large dummy standing in the middle of the track, when struck, fell against the corner of car, then forward across corner of fender with head and shoulders outside of track and was pushed along. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 2.* A large dummy standing on one rail, when struck, fell against the corner of the car, then over edge of fender, and went partly under the forward truck. The fender was tripped by the motorman. The speed of the car was about twelve miles per hour. An air brake pipe was broken in this test and car had to be taken in for repairs.

*Test No. 3.* A large dummy standing in the middle of the track, when struck, fell against dasher of car, then forward in front of fender and was pushed along. The fender was tripped by the motorman. The speed of the car was about twelve miles per hour.

*Test No. 4.* A small dummy standing in the middle of track was picked up and remained on the fender. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 5.* A small dummy lying lengthwise in the middle of the track, with feet toward car, was picked up and remained on fender. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 6.* A small dummy lying diagonally across one rail, with feet outside and toward car, was pushed along in front, and just as car



stopped went partly under the fender. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 7.* A small dummy lying diagonally across one rail, with feet outside and toward car, was pushed to one side and was caught by end of lifeguard on rear truck. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 8.* A small dummy lying lengthwise in the middle of the track, with head toward car, was picked up and remained on the fender. The fender was tripped by the motorman. The speed of the car was about twelve miles per hour.

Withdrawn in good condition.

#### SALEM AUTOMATIC WHEELGUARD.

[I. H. CALIGA, SALEM, MASS.]

##### *On Boston Elevated railway double truck car No. 1385.*

This device is constructed with pipe frame and steel straps, and is made slightly plow-shaped by having the corners cut off.

It is attached to the truck and is adjusted with front edge of guard about three inches above the roadbed.

The tripping device is twenty-eight inches in front of lifeguard and is three inches above roadbed.

This wheelguard has been on car No. 1385 about two years and car has been operated in Boston.

*Test No. 1.* A large dummy lying squarely across the track was pushed along in front of guard. The wheelguard tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 2.* A large dummy lying lengthwise in middle of the track, with head toward car, was picked up and remained on the guard with feet and legs dragging in front. The wheelguard was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 3.* A small dummy lying lengthwise in middle of track, with feet toward car, was picked up and remained on the guard. The wheelguard was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 4.* A small dummy lying lengthwise in middle of track, with head toward car, was picked up and remained on the guard. The wheelguard was tripped automatically. The speed of the car was about twelve miles per hour.

*Test No. 5.* A small dummy lying squarely across one rail, with head outside, went partly upon the guard and then over end of same clear of trucks. The wheelguard was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 6.* A small dummy lying squarely across one rail, with head and shoulders inside, was pushed to one side, but wheels passed over

both feet. The wheelguard was tripped automatically. The speed of the car was about twelve miles per hour.

*Test No. 7.* A small dummy lying lengthwise in middle of track, with feet toward car, was partly picked up, head and shoulders dragging in front. The wheelguard was tripped automatically. The speed of the car was about ten miles per hour.

Withdrawn in good condition.

#### H. B. AUTOMATIC WHEELGUARD.

[WONHAM, SANGER & BATES, NEW YORK, N. Y.]

##### *On double truck car No. 294.*

This device consists of an iron frame with heavy wood slats, attached to the truck, and adjusted with front edge five inches above the rail.

The tripping device is twenty-five inches in front of guard and five inches above the rail.

*Test No. 1.* A large dummy lying lengthwise in the middle of the track, with head toward car, was partly picked up on the guard, feet and legs dragging in front. The wheelguard was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 2.* A large dummy lying lengthwise in the middle of the track, with feet toward car, was partly picked up, head and body dragging in front and under trip. The wheelguard was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 3.* A large dummy lying squarely across one rail, with head inside, was pushed along, one arm under guard, preventing same from dropping to roadbed. A portion of the dummy was under the trip and prevented it from swinging back into place. The wheelguard was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 4.* A large dummy lying squarely across track was pushed along in front of guard, one arm under same. The wheelguard was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 5.* A small dummy lying lengthwise in the middle of the track, with head toward car, was picked up and remained on the guard, feet and legs dragging in front. The wheelguard was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 6.* A small dummy lying lengthwise in the middle of the track, with feet toward car, was pushed along in front of the guard, one foot under same and head and shoulders under trip. The wheelguard was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 7.* A small dummy lying squarely across one rail, with head inside, was pushed along in front of the guard, one arm under the

same. The wheelguard was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 8.* A small dummy lying squarely across one rail, with head inside, was pushed along in front of the guard, one arm under the same. The wheelguard was tripped automatically. The speed of the car was about ten miles per hour.

*Devices tested November 2, 1911.*

NELSON BROTHERS PROJECTING DROP FENDER.

[NELSON BROTHERS, BOSTON, MASS.]

*On double truck car No. 294.*

This device consists of a frame of iron with steel straps for bed, supported by side arms to car sills. It extends three feet in front of the car. When not in use it pushes under the car.

It is operated by the motorman and is held down by springs when dropped. The front is about four inches above rail.

*Test No. 1.* A large dummy standing in the middle of the track was picked up and remained on the fender. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 2.* A large dummy standing on one rail, when struck, fell back of the fender, then over one side, one leg being caught in fender, dragging the dummy along partly under the fender. The fender was tripped by the motorman. The speed of the car was about twelve miles per hour.

*Test No. 3.* A large dummy standing near one rail just inside, when struck, fell against the dasher, then over side of fender and was caught under lifeguard of forward truck. The front of the fender caught on the roadbed and turned under. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

Withdrawn disabled.

WORCESTER AUTOMATIC WHEELGUARD.

[WORCESTER RAILWAY SUPPLY COMPANY, WORCESTER, MASS.]

*On single truck car No. 114.*

This device is attached to car body just in front of the truck and is about eight inches above the rail at the back. It is constructed with iron frame and steel straps.

The tripping device is thirty-four inches in front of guard and four inches above the rail. The front of the guard is seven inches above the rail.

*Test No. 1.* A large dummy lying lengthwise in the middle of the track, with head toward car, was picked up and remained on the guard.

The wheelguard was tripped automatically. The speed of the car was about twelve miles per hour.

*Test No. 2.* A large dummy lying lengthwise in the middle of the track, with feet toward car, was picked up and remained partly on the guard. The wheelguard was tripped automatically. The speed of the car was about twelve miles per hour.

*Test No. 3.* A large dummy lying squarely across one rail, with head and shoulders inside, went under the guard and lay under the motor when car came to a stop. The wheelguard tripped automatically, and was put out of commission. The speed of the car was about twelve miles per hour.

Withdrawn disabled.

#### MAXHAM AUTOMATIC WHEELGUARD.

[LOWELL M. MAXHAM, BOSTON, MASS.]

##### *On double truck car No. 288.*

The device is attached to car body as near the truck as possible. It is constructed with iron frame and steel straps, with the tripping gate twenty-two inches in front of the guard, and four and one-half inches above rail. The front of the guard is seven inches above rail.

*Test No. 1.* A large dummy lying lengthwise in the middle of the track, with head toward car, was partly picked up, feet and legs dragging in front. The wheelguard was tripped automatically. The speed of the car was about twelve miles per hour.

*Test No. 2.* A large dummy lying lengthwise in the middle of the track, with feet toward car, was pushed along in front of the guard, one foot under same. The wheelguard was tripped automatically. The speed of the car was about twelve miles per hour.

*Test No. 3.* A large dummy lying squarely across track, with arms extended, passed completely under the guard and lay under the car when it stopped. The wheelguard was tripped automatically. The speed of the car was about twelve miles per hour.

Withdrawn disabled.

#### BALCOM PROJECTING DROP FENDER.

[H. B. BALCOM, WHITMAN, MASS.]

##### *On double truck car No. 320.*

This device consists of a straight platform constructed with steel strap iron, with upright buffer at back. The platform has a wood roller attached to the front edge. It also has a loose section, like a panel, at either side, held in place by latches; these are intended to be forced out and held by springs to form wings when the fender comes in contact with any object. The fender was hung so low that front edge was on roadbed at all times and the tripping device was not made use of.

*Test No. 1.* A small dummy lying lengthwise in the middle of the track, with head toward car, was picked up and remained on the fender with feet and legs dragging in front. The speed of the car was about six miles per hour.

*Test No. 2.* A small dummy lying lengthwise in the middle of the track, with feet toward car, went under the fender and was caught under the lifeguard on forward truck. The speed of the car was about ten miles per hour.

*Test No. 3.* A small dummy lying squarely across one rail, with head inside, went under the fender and was caught under the lifeguard of forward truck. The speed of the car was about ten miles per hour.

*Test No. 4.* A large dummy lying lengthwise in the middle of the track, with head toward car, was picked up and remained on the fender, legs dragging in front. The speed of the car was about ten miles per hour.

*Test No. 5.* A large dummy lying squarely across one rail, with head inside, went under the fender, and the lifeguard of forward truck pushed it one side clear of the trucks. The speed of the car was about ten miles per hour.

*Test No. 6.* A large dummy lying diagonally across one rail, with head outside, went under the fender and was caught under the lifeguard of forward truck. The speed of the car was about ten miles per hour.

Withdrawn.

#### ROGAN AUTOMATIC PROJECTING FENDER.

[JOHN A. ROGAN, PLYMOUTH, MASS.]

##### *On double truck car No. 320.*

This device consists of iron frame with steel straps forming the bed. It is supported by side arms to the car sills. The fender has two platforms, one above the other, the upper one forming the trip and extending fifteen inches in front of the lower platform. The fender is adjustable as to height by means of bolts in side brackets. When not in use it pushes under the car. It will work as a wheelguard when under the car.

*Test No. 1.* A large dummy lying squarely across the track was pushed along in front of the fender, one arm under. The fender was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 2.* A large dummy lying lengthwise in the middle of the track, with head toward the car, was picked up and remained on the fender. The fender was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 3.* A large dummy lying diagonally across the track, with head toward the car, was picked up and remained on the fender. The fender was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 4.* A small dummy lying squarely across one rail, with head outside, was picked up by the lower platform, head and shoulders over one end. The fender was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 5.* A small dummy standing in the middle of the track was picked up and remained on the fender. The fender was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 6.* A small dummy standing on the track near one rail was picked up and remained on the fender. The fender was tripped automatically. The speed of the car was about ten miles per hour.

*Test No. 7.* A small dummy standing on the track near one rail was picked up, but fell over one end of fender and was caught under the lifeguard on the forward truck. The fender was tripped automatically. The speed of the car was about ten miles per hour.

Withdrawn in good condition.

#### GERAGHTY AUTOMATIC PROJECTING FENDER.

[J. P. GERAGHTY, JERSEY CITY, N. J.]

##### *On double truck car No. 310.*

The device consists of an iron frame with cradle of wood slats fastened on chains. When coming in contact with an object the fender is intended to have a backward and downward motion. When not in use it folds against the dasher.

*Test No. 1.* A small dummy standing in the middle of the track, when struck, fell on the fender, then forward and was pushed along in front of fender, feet under. The speed of the car was about ten miles per hour.

*Test No. 2.* A small dummy standing on the track near one rail was picked up and remained on the fender. The speed of the car was about ten miles per hour.

*Test No. 3.* A small dummy standing on the track near one rail, when struck, fell on fender, then forward and was pushed along with feet and legs under. The speed of the car was about ten miles per hour.

*Test No. 4.* A large dummy standing in the middle of the track, when struck, fell on the fender, then forward and fender passed over it. It caught under the rear of the fender and dragged along. The speed of the car was about ten miles per hour.

Withdrawn.

#### PROVIDENCE WHEELGUARD WITH EMERGENCY AIR DROP.

[CONSOLIDATED CAR FENDER COMPANY, PAWTUCKET, R. I.]

##### *On double truck car No. 310.*

The device is constructed of curved steel ribs, with a steel rod in front passing through eyes in the ribs. On this rod and between the

ribs are rubber rolls. It is supported from the car sills. The tripping is accomplished by an emergency application of the air brake by means of the one handle on motorman's valve.

*Test No. 1.* A large dummy standing in middle of track was knocked down and pushed along in front of wheelguard. The wheelguard was tripped by emergency application of the air brake. The speed of the car was about ten miles per hour.

*Test No. 2.* A large dummy lying squarely across the track was picked up and remained on the wheelguard. The wheelguard was tripped by emergency application of the air brake. The speed of the car was about ten miles per hour.

*Test No. 3.* A small dummy lying squarely across one rail, with head inside, went partly up on wheel guard and remained thereon, feet and legs dragging in front. The wheelguard was tripped by emergency application of the air break. The speed of the car was about twelve miles per hour.

*Test No. 4.* A small dummy lying squarely across one rail, with head outside, was picked up on the wheelguard, head over one end. The wheelguard was tripped by emergency application of the air brake. The speed of the car was about twelve miles per hour.

*Test No. 5.* A small dummy lying lengthwise in middle of track, with feet toward car, went under wheelguard and was run over. The wheelguard did not trip. The speed of the car was about ten miles per hour.

*Test No. 6.* A small dummy lying lengthwise in middle of track, with feet toward car, went under the wheelguard and was run over. The wheelguard did not trip. The speed of the car was about ten miles per hour.

*Test No. 7.* A small dummy lying lengthwise in middle of track, with feet toward car, was picked up and remained on the wheelguard, which was tripped by emergency application of the air brake. The speed of the car was about twelve miles per hour.

Withdrawn in good condition.

#### NELSON BROTHERS PROJECTING DROP FENDER.

[NELSON BROTHERS, BOSTON, MASS.]

##### *On double truck car No. 294.*

The fender consists of an iron frame with steel straps forming the platform, and is supported by side arms from car sills. The platform extends three feet in front of the car. It is operated by the motorman by means of a foot trip and is held down by springs when dropped. There are rollers under the front edge of the platform. The fender is eight inches high at the back and four inches at the front. When not in use it pushes under the car.

*Test No. 1.* A small dummy standing in the middle of the track was picked up and remained on the fender. The fender was tripped by the motorman. The speed of the car was about six miles per hour.

*Test No. 2.* A small dummy standing on the track near one rail was picked up and remained on the fender. The fender was tripped by the motorman. The speed of the car was about nine miles per hour.

*Test No. 3.* A small dummy standing on the track near one rail was picked up and remained on the fender. The fender was tripped by the motorman. The speed of the car was about nine miles per hour.

*Test No. 4.* A large dummy standing in the middle of the track, when struck, fell against the dasher then forward, in front of the fender, and was pushed along. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 5.* A large dummy standing in the middle of the track, when struck, fell against the dasher, then forward on the fender, feet and legs dragging in front. The fender did not trip until the dummy fell on it. The speed of the car was about ten miles per hour.

*Test No. 6.* A large dummy standing on one rail, when struck, fell against dasher, then forward, and over end of fender, and was caught under end of lifeguard of forward truck. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 7.* A large dummy lying squarely across track was picked up and remained on the fender, one leg dragging in front. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 8.* A small dummy lying diagonally across one rail, with head inside, was pushed to one side and the wheel passed over one foot. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 9.* A small dummy lying lengthwise in middle of track, with head toward car, was pushed along, one arm and one leg under the fender. The motorman said he could not trip the fender. The speed of the car was about twelve miles per hour.

*Test No. 10.* A small dummy lying diagonally across track near one rail, with feet toward car, was picked up and remained on the fender. The fender was tripped by the motorman. The speed of the car was about twelve miles per hour.

Withdrawn.

#### ALBREE PROJECTING DROP FENDER.

[C. B. ALBREE, PITTSBURGH, PENN.]

##### *On double truck car No. 294.*

The fender consists of a platform and an upright protector at the back, the whole being constructed with pipe frame and wire mesh supported by two pivots attached to the car bumper. The side arms



of the platform extend back under the car and have counter weights attached. When the front of the fender comes in contact with any obstacle it tends to move the whole fender backward and downward, thus bringing the front down to the track. When not in use it folds against the dasher of the car. The front of the platform is three inches above rail. It extends three feet in front of car.

*Test No. 1.* A large dummy standing in the middle of the track, when struck, fell against the dasher, then forward in front of fender, and was pushed along, one foot under the fender. The speed of the car was about ten miles per hour.

*Test No. 2.* A large dummy standing on the track a little to one side of the center was picked up and remained on the fender. The speed of the car was about ten miles per hour.

*Test No. 3.* A small dummy lying squarely across one rail, with head outside, was pushed along in front of the fender, with feet and legs under the same. The speed of the car was about ten miles per hour.

*Test No. 4.* A small dummy lying squarely across one rail, with head inside, was pushed along in front of the fender, feet and legs under the same. The speed of the car was about twelve miles per hour.

*Test No. 5.* A small dummy lying lengthwise in middle of track, with head toward car, was picked up and remained on the fender. The speed of the car was about ten miles per hour.

*Test No. 6.* A small dummy lying lengthwise in the middle of the track, with feet toward car, was pushed along in front of the fender. The speed of the car was about ten miles per hour.

*Test No. 7.* A large dummy lying lengthwise in the middle of the track, with head toward car, was picked up and remained on the fender. The speed of the car was about ten miles per hour.

*Test No. 8.* A large dummy lying squarely across track went under the fender and was caught under the lifeguard of the forward truck. The speed of the car was about ten miles per hour.

Withdrawn in good condition.

#### LYDON PROJECTING PLATFORM FENDER.

[MARTIN W. LYDON, ANDOVER, MASS.]

##### *On double truck car No. 314.*

The device consists of an iron frame with steel strap mesh. It is supported on hangers from the side sills of the car. It has flanged wheels under the front edge at either corner which are intended to run on the rail. The fender is on a pivot and is intended to swivel when passing around curves, this swivelling motion to be obtained by the wheels under the front edge following the curve. The fender extends three feet six inches in front of the car. When not in use it folds against the dasher.

*Test No. 1.* A large dummy standing in the middle of the track, when struck, fell on fender and remained thereon. The speed of the car was about nine miles per hour.

*Test No. 2.* A large dummy standing on one rail, when struck, fell over end of the fender and the wheels passed over one foot. The speed of the car was about twelve miles per hour.

*Test No. 3.* A large dummy lying squarely across track passed under the fender and lay under the forward truck when the car stopped. The speed of the car was about twelve miles per hour.

The car was run out on to Walnut street around the curve to test the working of the fender on curves. The small flanged wheels under the front of the fender would not follow the curve, therefore the fender would not swivel.

Withdrawn.

CARRAHER PROJECTING DROP FENDER.

[T. J. CARRAHER, HEATH, MASS.]

*On double truck car No. 314.*

(Retrial with dashboard protector attached.)

*Test No. 1.* A large dummy standing in the middle of the track, when struck, fell on the fender and remained thereon, one foot dragging in front. The fender was not tripped. The speed of the car was about ten miles per hour.

*Test No. 2.* A large dummy standing on the track near one rail, when struck, fell on the fender and remained thereon. The fender was not tripped. The speed of the car was about twelve miles per hour.

*Test No. 3.* A large dummy standing on the track near one rail, when struck, fell on the fender and remained thereon, feet and legs dragging in front. The fender was not tripped. The speed of the car was about twelve miles per hour.

*Test No. 4.* A large dummy standing in the middle of the track, when struck, fell against the dasher, then forward in front of fender, and was pushed along. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 5.* A small dummy lying lengthwise in the middle of the track, with head toward car, was picked up and remained on the fender. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 6.* A small dummy lying lengthwise in the middle of the track was partly picked up and remained on the fender, head and shoulders dragging in front. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 7.* A small dummy lying squarely across one rail, with head outside, went over end of the fender and the wheels passed over one hand. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

## CARRAHER WHEELGUARD.

[T. J. CARRAHER, HEATH, MASS.]

*On double truck car No. 314.*

*Test No. 1.* A large dummy lying squarely across the track was picked up on the wheelguard and remained thereon, one foot dragging in front. The wheelguard was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 2.* A small dummy lying across one rail, with head inside, was picked up and remained on the wheelguard. The wheelguard was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 3.* A small dummy lying across one rail, with head outside, was pushed along in front of the wheelguard. The wheelguard was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 4.* A small dummy lying lengthwise in the middle of the track, with head toward car, was picked up and remained on the wheelguard. The wheelguard was tripped by the motorman. The speed of the car was about ten miles per hour.

Withdrawn in good condition.

## PARMENTER PROJECTING DROP FENDER.

[GEORGE A. PARMENTER, BOSTON, MASS.]

*On double truck car No. 318.*

This device consists of an iron frame with steel straps. The dashboard is protected with chain mesh. It is operated by the motorman. When not in use it folds up. It is supported by brackets from the car sills.

*Test No. 1.* A large dummy lying across the track was picked up and remained on the fender. The fender was tripped by the motorman. The speed of the car was about ten miles per hour.

*Test No. 2.* A large dummy lying across the track was picked up and remained on the fender. The fender was tripped by the motorman. The speed of the car was about twelve miles per hour.

Withdrawn disabled.

## PARMENTER AUTOMATIC WHEELGUARD.

[GEORGE A. PARMENTER, BOSTON, MASS.]

*On double truck car No. 318.*

This device consists of an iron frame with steel straps. It is attached to the truck. The trip is twenty-one inches in front of the wheelguard and five inches above the rail.

*Test No. 1.* A small dummy lying across the track passed under the wheelguard and lay under the motor of front truck when the car stopped. The speed of the car was about twelve miles per hour.

*Test No. 2.* A large dummy lying diagonally across one rail, with feet toward car, was pushed along by the wheelguard, with feet and legs under same. The speed of the car was about twelve miles per hour.

*Test No. 3.* A large dummy lying squarely across the track was pushed along by the wheelguard, one arm under the same. The speed of the car was about twelve miles per hour.

*Test No. 4.* A large dummy lying lengthwise in the middle of the track, with head toward car, went under the wheelguard and was dragged along. The speed of the car was about twelve miles per hour.

*Test No. 5.* A large dummy lying lengthwise in the middle of the track, with head toward car, was pushed along in front of the wheelguard. The speed of the car was about eight miles per hour.

*Test No. 6.* A large dummy lying squarely across the track was picked up and remained on the wheelguard. The speed of the car was about seven miles per hour.

Withdrawn.

#### MOONEY PROJECTING FENDER.

[ARTHUR F. MOONEY, EAST BOSTON, MASS.]

*On double truck car No. 324.*

(Retrial.)

This device consists of a platform strengthened by sheet iron. The bracket supports are strengthened with a brace.

*Test No. 1.* A large dummy lying squarely across the track was pushed along in front of the fender. The speed of the car was about eight miles per hour.

*Test No. 2.* A small dummy lying squarely across the track was pushed along, partly under the fender. The speed of the car was about ten miles per hour.

*Test No. 3.* A small dummy lying squarely across the track was pushed along in front of the fender. The speed of the car was about eight miles per hour.

*Test No. 4.* A small dummy lying squarely across the track was pushed along in front, one arm under the fender. The speed of the car was about ten miles per hour.

*Test No. 5.* A small dummy lying across one rail, with head outside, was pushed along a short distance, then passed by one end of the fender, clear of the car. The speed of the car was about ten miles per hour.

Withdrawn in good condition.

## BERG PROJECTING FENDER.

[ELECTRIC TRACTION SUPPLY COMPANY, ST. LOUIS, MO.]

*On double truck car No. 324.*

This device consists of a platform and buffer with pipe frame and wood slats. It was tested as a rigid fender. When not in use it folds up.

*Test No. 1.* A small dummy standing in middle of the track, when struck, fell on the fender and remained thereon. The speed of the car was about ten miles per hour.

*Test No. 2.* A small dummy standing on the track near one rail, when struck, fell on the fender and remained thereon. The speed of the car was about ten miles per hour.

*Test No. 3.* A large dummy standing in the middle of the track, when struck, fell on the fender and remained thereon. The speed of the car was about ten miles per hour.

*Test No. 4.* A large dummy standing on the track near one rail, when struck, fell against the dasher, then forward, and over one end of the fender, clear of the car. The speed of the car was about ten miles per hour.

*Test No. 5.* A large dummy lying squarely across the track went under the fender and was caught and pushed along in front of the lifeguard on the forward truck. The speed of the car was about ten miles per hour.

Withdrawn in good condition.

## H. B. AUTOMATIC LIFEGUARD.

[WONHAM, SANGER &amp; BATES, NEW YORK, N. Y.]

On Boston Elevated car No. 2277 (single truck), and said to have been in operation for two years. The construction is practically the same as the one in the previous test, the difference being that the tripping gate is three feet six inches in front of the guard and three and one-half inches above the rail.

*Test No. 1.* A small dummy lying lengthwise in the middle of the track, with head toward the car, was picked up and remained on the lifeguard, feet and legs dragging in front. The speed of the car was about twelve miles per hour.

*Test No. 2.* A small dummy lying across one rail, with head inside, was pushed along in front of the lifeguard a short distance, then passed by one end clear of the car. The speed of the car was about ten miles per hour.

*Test No. 3.* A small dummy lying across one rail, with head outside, was pushed along in front of the lifeguard. The speed of the car was about ten miles per hour.

*Test No. 4.* A large dummy lying lengthwise in the middle of the track, with head toward car, was partly picked up, with head and body on the lifeguard, and feet and legs dragging in front. The speed of the car was about ten miles per hour.

*Test No. 5.* A large dummy lying lengthwise in the middle of the track, with feet toward car, was partly picked up, with feet and legs on lifeguard head and body pushed along in front. The speed of the car was about ten miles per hour.

*Test No. 6.* A small dummy standing in the middle of the track was pushed along in front of the lifeguard. The speed of the car was about ten miles per hour.

*Test No. 7.* A small dummy standing in the middle of the track was pushed along in front of the lifeguard. The speed of the car was about ten miles per hour.

Withdrawn in good condition.

### *Conclusion.*

In the cities abroad visited by the Board the question of equipping street cars with safety devices has apparently been satisfactorily solved by the abandonment of the use of protruding fenders and the general adoption of automatic wheelguards. This has been made possible by the favorable conditions there existing, namely, the excellent condition in which the surface of the streets adjacent to railway tracks is maintained, the absence of great accumulations of snow and ice and the adoption of a rule fixing the maximum rate of speed of cars at sixteen miles per hour, the average rate of speed being about eight miles per hour. Such conditions permit the installation and successful maintenance of these wheelguards at a point within two or three inches of the rail.

If like conditions existed in this commonwealth the fender and wheelguard problem could be as readily and as satisfactorily adjusted as it has been abroad. Unfortunately the situation is entirely different. Irregular and uneven surfaces of highways and railway locations, accumulations of snow and ice for extended periods of time, climatic changes which frequently result in the upheaval of paving blocks and other road materials are conditions that make difficult the maintenance of wheelguards, even within four or five inches of the rail. This distance is sufficient to allow a body to pass under the wheelguard, if the track is not properly filled between the rails.

Analysis of casualties which have occurred shows that the most distressing accidents are those where persons come in contact with the wheels of cars. The Board feels justified in the opinion it holds, and which is frequently expressed by managements of electric railways and others qualified to decide, that the future study of this subject should be more definitely confined to the securing of efficient wheelguards. This opinion is confirmed by conditions found in the recent investigation of the Board, especially when compared with those existing in 1906, for in many cities the general use of fenders has now been discontinued and cars have been equipped with wheelguards only.

The managements of interurban lines in the south and west, where cars weighing from forty to fifty tons are operated over private rights of way at a very high rate of speed, entering and passing through villages, towns and important cities have, after careful consideration, equipped their cars with pilots, or cow-catchers, similar to those used on steam locomotives.

The population of the foreign cities visited is very compact, and high speed lines rarely, if ever, enter therein over surface tracks. In the cities and towns of this commonwealth there are very few lines which might be termed strictly city lines, with cars operating at a low rate of speed. Other cars are also operated over these city lines and then enter upon reservations and private rights of way, where high speed is frequently attained. The question of the equipment of these cars with automatic or with manually controlled fenders and wheelguards has to be considered with reference to the likelihood of their coming in contact with irregularities in the streets, resulting in the possible derailment of the car and serious or fatal injury to passengers. The Board deems it a duty to protect those riding in street cars as well as those otherwise using the highways.

Those who come in contact with moving objects in the streets, whether electric cars or other vehicles, cannot expect to escape injury. It is for the purpose of lessening the extent of such injuries that street railway cars in this commonwealth have been equipped with both fenders and wheelguards.

It has been demonstrated that the poorest device will, under favorable conditions, produce good results, and that the best

device will, under unfavorable conditions, fail to produce good results.

Owing to the present condition of portions of the public highways and railway locations in this state, the varying types of street car construction, the use of both single and double truck cars, and the different positions of victims, the Board is convinced that there is no device which will, under all circumstances, save life or prevent serious injury. Only favorable conditions combined with the use of efficient devices will secure satisfactory results.

That the number of fatal or serious injuries from accidents that now too frequently occur may be reduced to a minimum the Board considers it most important that local authorities and street railway companies co-operate in improving conditions of road-bed and track and of the surface of highways in the immediate vicinity thereof — conditions which now prevent the successful use of fenders and wheelguards.

In its opinion no further legislation with regard to fenders and wheelguards is necessary at this time.

#### LIFTING JACKS.

From information received from the officials of street railway companies the Board finds that lifting jacks and other emergency tools have been installed at 391 points upon the street railway lines in this commonwealth. Of this number 199 points have been established since January 1, 1911, by the recommendation of the Board.

The Board has ordered that, on or before July 1, 1912, at least fifty per cent. of all box and open cars shall be equipped with a lifting jack of at least fifteen tons capacity, and has recommended that the trucks of all double truck cars be so attached to the body of the car that both car and trucks may be raised at the same time. A further recommendation has been made that, in the meantime, all conductors and motor-men receive instructions with reference to the proper and safe use of lifting jacks.



## SPECIAL REPORT ON RESOLVES OF 1911, CHAPTER 83.

Chapter 83 of the Resolves of 1911, providing for a report relative to suburban express offices at the North and South stations in the city of Boston reads as follows:

*Resolved*, That the board of railroad commissioners be requested to investigate the expediency of providing accommodations at the north and south stations in the city of Boston for the use of the various express companies acting as common carriers in the city of Boston and neighboring cities and towns, for the convenience of passengers arriving at said stations, and to report its findings to the general court on or before the second Saturday of January, nineteen hundred and twelve.

In pursuance of the foregoing resolve a public hearing was given by the Board. At the hearing the officers of the association representing the local express companies called attention to certain practical difficulties of operation in the scheme proposed. In their opinion they could handle their express business more conveniently and economically through their present offices, and they were therefore unwilling to avail themselves of any accommodations that might be provided at the North or South stations.

As no public demand was disclosed for such accommodations, and as they would in any event be useless without the co-operation of the suburban express companies, we do not deem it advisable at this time to recommend any legislation.

## SPECIAL REPORT ON RESOLVES OF 1911, CHAPTER 88.

Chapter 88 of the Resolves of 1911, providing for an investigation and report by the Board of Railroad Commissioners relative to a highway bridge over the tracks of the Boston and Albany railroad at Matthews street in the city of Chelsea, reads as follows:

*Resolved*, That the board of railroad commissioners is hereby directed to investigate the necessity and advisability of the construction by the Boston and Albany Railroad Company of a bridge across the tracks of said company on Matthews street in the city of Chelsea, together with any necessary approaches to the said bridge. The board is further

directed to report the result of its investigation, with such recommendations as it may deem proper, to the general court on or before the fifteenth day of January in the year nineteen hundred and twelve.

The Board of Railroad Commissioners has given a public hearing and made a careful investigation of the subject-matter of the foregoing resolve. Matthews street is laid out as a public way transversely to and on either side of the tracks of the Grand Junction division of the Boston and Albany railroad, but there is at present no physical connection between the stub ends which abut on the railroad location, and a bridge is desired to establish this connection.

The part of Matthews street easterly of the Boston and Albany location was laid out and accepted as a public way within a comparatively recent period. The only territory which it is adapted to serve is a triangular piece of land bounded by Eastern avenue and the locations of the Boston and Albany and the Boston and Maine railroads. The greater part of this territory is owned by a manufacturing company and the Boston and Maine Railroad. A large part of the tract owned by the manufacturing company and the entire tract owned by the Boston and Maine Railroad is unoccupied and undeveloped, and the same is substantially true of the remainder of this territory. No evidence was presented at the hearing of any demand by any of the land owners in this section, and little evidence of any demand on the part of the public, for the construction of the bridge in question. There is at the present time an overhead crossing of the Boston and Albany tracks on Bellingham street, which runs parallel to and about 400 feet southerly of Matthews street, and which serves the same territory.

In the opinion of the Board highway facilities adequate for all the present needs of this district are furnished by Bellingham street and other existing avenues of travel. The Board therefore does not find that public convenience and necessity require that an additional bridge should be constructed at the present time over the tracks of the Boston and Albany Railroad at Matthews street.

The construction of the bridge in question was, however, urged, not so much from the standpoint of its necessity and

convenience to the public as on the theory that it is a matter of moral obligation on the part of the Boston and Albany Railroad Company. At the hearing reference was made to a taking many years ago by the railroad of a strip of land along its location. This taking resulted in a controversy with the city and abutting land owners, which was finally settled by compromise. It was claimed that this settlement was so advantageous to the railroad that the company might fairly, as an offset, be asked to assume the expense of constructing the Matthews street bridge. The Board does not feel called upon to review the settlement made in that case, but even if there should be any equities in favor of the owners whose lands were taken, it does not seem to us that the proper remedy is to require the construction of a bridge which is designed to benefit a different set of land owners in a different part of the city.

The chief argument, however, to substantiate the claim of a moral obligation on the part of the Boston and Albany Railroad Company to build this bridge was based upon the terms of the act under which the original location was granted to the Chelsea Branch Railroad Company. This act, which is chapter 30 of the Acts of 1847, contained a provision requiring the railroad company to construct suitable bridges at the intersection of its tracks with certain highways constructed or to be constructed in accordance with a specified plan representing a projected scheme of land development in Chelsea.

It appears that Matthews street was shown upon this plan as one of the proposed streets, although it was not laid out and accepted as a public way until long after the railroad was constructed. The provision referred to in the act of 1847 was, however, repealed by chapter 236 of the Acts of 1851, which was enacted on the petition of the Grand Junction Railroad and Depot Company, successor of the Chelsea Branch Railroad Company.

By the repeal of that act the people of Chelsea are limited to their legal rights under the general law as contained in sections 113 and 116 of part II of chapter 463 of the Acts of 1906. Under these provisions a bridge may be constructed at Matthews street if the county commissioners adjudge that the public necessity and convenience so require, but the entire ex-

pense must be borne by the city of Chelsea. The claim is, however, made that the act of 1851 was allowed to pass through inadvertence, and that the city should now be restored substantially to its rights under the original act passed in 1847.

So far as we have been able to learn, this contention was first made in 1894, when a bill, covering substantially the same subject-matter as the present resolve, was introduced in the legislature. That bill was defeated, and a similar bill introduced the following year was also defeated. The bill was once more introduced in the legislature and again defeated in 1902. It was again introduced this year and disposed of by reference to this Board according to the terms of the resolve now under consideration.

The alleged moral obligation, growing out of an occurrence sixty years ago, rests entirely upon equitable grounds, and it might well be claimed that the equitable rights of the city of Chelsea, if any, have been lost through laches. The legislature has on three occasions declined to recognize the validity of any moral obligation that would justify the passage of the bills heretofore presented, and in that view the Board concurs.

After a careful consideration of the whole matter we do not deem the construction by the Boston and Albany Railroad Company of the proposed bridge across the tracks of said company to be at the present time necessary and available.

#### ELECTRIFICATION OF STEAM RAILROADS.

The subject of electrification of steam railroads in the metropolitan district was treated at length in the report made to the last general court by the joint board on metropolitan improvements, which included the members of the railroad commission. As the present chairman is in accord with the views expressed in the report signed by a majority of the members of this commission, it is unnecessary to add anything at this time to the discussion of the general problem. Whatever differences there may be in regard to methods it is generally agreed that electrification, at least within the metropolitan district, is bound to come in the near future. But before this can come about, either through legislation or through the voluntary action of the railroads by reason of the pressure of public opinion, there

is one obstacle which must in some way be removed. Reference to this matter has already been made by the joint board on page 47 of their report, as follows:

There are further elements which complicate the situation here. The lease by which the New York, New Haven and Hartford Railroad Company operates the Boston and Providence railroad provides that all permanent improvements shall be paid for by the lessee, but at the expiration of the lease shall become the property of the lessor. This, as explained in the report, is a serious obstacle to the electrification of that line, which should in some way be removed before such electrification is undertaken.

Further reference is made to the same matter on page 68 of the report of the joint board as follows:

Of all the New York, New Haven and Hartford Railroad lines entering the city, the Boston and Providence is probably the one which should first be undertaken. Its grade crossings are all eliminated, and it is four-tracked, nearly or quite to the limits of the Metropolitan District; its local traffic is large; and it is the main through line of the New York, New Haven and Hartford Railroad, and carries probably the largest passenger traffic.

Since the filing of that report the subject of the electrification of a part of the Boston and Providence railroad has also been the subject of discussion before a committee of the legislature.

We do not believe that the existing relations between the Boston and Providence and the New York, New Haven and Hartford railroads should stand indefinitely in the way of future improvements of our transportation facilities, if it should be found possible to devise some method of financing such improvements to the property of the Boston and Providence Railroad Company as may be necessary or desirable in the public interest, without either interfering with the rights of the lessor or unduly burdening the lessee. A consideration of the question with such legislation as may be necessary to accomplish this purpose may result in the near future in the beginning of the work of electrification of our railroads.

## SPECIAL REPORT ON ORDER OF THE HOUSE OF REPRESENTATIVES.

On June 29, 1911, the House of Representatives adopted the following order:

*Ordered*, That the Board of Railroad Commissioners be requested to consider the advisability of requiring all railroad corporations operating in this Commonwealth to furnish every passenger with a seat, and to provide that railroad corporations shall be prohibited from collecting more than a half fare from any passenger not furnished with a seat.

The Board gave a hearing and made an investigation of the matter referred to it under the terms of the foregoing order.

We believe it to be desirable and reasonable that seating capacity sufficient for the normal conditions of travel should, wherever it is feasible, be furnished upon railroad passenger trains in this commonwealth, and it is the policy of the Board to see that, so far as possible, this standard of service is maintained. We do not, however, believe it possible, by the exercise of any intelligent foresight, to anticipate and provide for exceptional occasions and conditions which may largely increase the volume of passenger traffic and overtax facilities which might reasonably have been deemed adequate.

Under the provisions of section 177 of part II of chapter 463 of the Acts of 1906, a penalty is provided for every case of wilful neglect on the part of a railroad corporation to furnish reasonable accommodations for the convenience and safety of passengers. But, in view of the difficulties already referred to in making provision for all contingencies, we do not deem it reasonable to go so far as to lay down an inflexible rule requiring railroad corporations under all circumstances to furnish a seat to every passenger.

Moreover, even if such a requirement should be deemed proper, the method proposed for its enforcement, by prohibiting the collection of more than a half fare from any passenger who is not furnished with a seat, would involve so many complications as to make it entirely impracticable in operation.

We therefore do not deem it advisable to recommend any additional legislation with reference to this matter.

## INQUESTS.

Under the provisions of section 14 of chapter 24 of the Revised Laws the bill for services in furnishing a report of the evidence taken at any inquest in relation to a death by accident upon a railroad or street railway shall be forwarded to the Board of Railroad Commissioners, and when approved by the Board shall be paid by the Commonwealth and "assessed on the several corporations owning or operating the railroad or street railway on which the accident occurred." Where such accidents occur, as they not infrequently do, upon private spur tracks or sidings leading to manufacturing or mercantile establishments, it is not clear whether the provisions of this section apply, and if they do it is still uncertain whether the assessment referred to should be made upon the railroad or railway corporation operating the main line or upon the individual firm or corporation owning or operating the siding. We would recommend that the law in this respect be more clearly defined.

It also seems desirable in the public interest that all available information in regard to accidents upon railroads or street railways should be in the possession of the Board as soon as practicable after the accident occurs. Under the provisions of the section already referred to, reports of all inquests held in such cases "shall be forwarded forthwith to the board," but in some instances these reports have been delayed so long as to be of little practical value to the Board. We would recommend that the law in this respect be made more explicit by providing that these reports shall be forwarded within a stated time after the inquest is held.

## SPRINGFIELD RIVER FRONT IMPROVEMENT.

Since the last report was issued, the consulting engineer employed to make studies and prepare plans for the improvement of the river front of the city of Springfield, has presented plans and studies, making a report in connection therewith to the Board, sitting as a special commission under the provisions of the Acts of 1907, chapter 551, as amended by Acts of 1910, chapter 352. The report was satisfactory neither to the city of Springfield nor the railroad corporations affected, and at the request of the city the matter has been continued for considera-

tion at a further date agreeable to all parties. The Board thinks it wise, however, to renew the suggestion made a year ago, in the following language: "The matter is not progressing as speedily as the commission has hoped, and we therefore incorporate this reference as a part of the annual report of the Board, in order that legislation, if found necessary, may be enacted by the General Court. We make no specific recommendation at this time, reserving the right, however, if it be proper, to make application to the General Court in the event of necessity."

#### CAPE COD CANAL.

During the past year, the Board, sitting jointly with the harbor and land commission, has issued its approval of certain additional securities of the Boston, Cape Cod and New York Canal Company. In November the work of relocating and rebuilding portions of the Woods Hole branch of the Old Colony railroad so that it should cross the canal at a point previously determined by the joint board was completed, and this Board issued a certificate preliminary to operation over the tracks, the order stipulating that while the use of a temporary crossing at grade appeared a matter of public convenience and necessity the company shall at all times while such crossing continues in use maintain gates or a flagman during the hours when train service is in operation. The order will be found in the appendix to this report.

#### IN CONCLUSION.

During the past year the records of the office show that 858 docketed cases and complaints occupied the attention of the Board, 120 of these having come over from the previous year. The official correspondence fills 4,550 pages in the copy book records. The typewritten records of the proceedings of the Board cover 600 pages.

In ten years the work of the office has increased three-fold, although the increase in the clerical force has been but three persons. In preparing its annual estimate the Board has felt it imperative that provision should be made for at least one additional clerk. In this connection, the Board would



renew its statement of two years ago that it finds embarrassment in performing its duties under the provisions of general law and of special acts and resolves through the fact that specific limitations in the law control its expenditures for compensation of its clerical force and for various incidental purposes, and it therefore recommends that the general court amend section 2, part I, chapter 463 of the Acts of 1906.

FREDERICK J. MACLEOD,  
GEORGE W. BISHOP,  
CLINTON WHITE,  
*Commissioners.*



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## APPENDIX.

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## APPENDIX.

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### SPECIAL REPORTS AND ORDERS RELATING TO RAILROADS, STREET RAILWAYS, ELECTRIC RAILROADS, STEAMBOATS AND EXPRESS COMPANIES.

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#### ACCOMMODATIONS, FARES, RATES, SERVICE.

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##### RAILROAD RATES AND SERVICE.

*Report of the Board on an order of the general court relative to mileage rates charged for the transportation of passengers by railroad corporations in this commonwealth.*

*To the Honorable the Senate and House of Representatives:*

On April 5, 1911, the house of representatives

*Ordered*, That the board of railroad commissioners be directed to ascertain if there has been a recent increase in the mileage rates charged for transportation of passengers by railroad corporations in this commonwealth or a recent increase in the reckoning of mileage by such corporations, and if so whether or not such increases are legal and justifiable. Said Board shall make report to the present general court.

This order was adopted in concurrence by the honorable the senate on April 11, 1911.

Pursuant to the foregoing order the board of railroad commissioners proceeded in the investigation and now makes report to the general court. Mr. H. W. Hayes, engineer of grade crossings for the commonwealth, was instructed by the Board under the provisions of Acts of 1911, chapter 214, to make ascertainment relative to the subject matter of the order, and his report accompanying this reply sets out in detail his investigations

and conclusions. From this report it appears that the method pursued was to compare the rates as filed with the interstate commerce commission with the distances as given in the employees' time cards issued by the operating departments of the railroads. Certain errors were disclosed by the investigation, which have now been corrected by the issuance of new tariffs or supplements to old tariffs. The method adopted by Mr. Hayes, under the instructions of the Board, appears to be the only feasible method of ascertainment other than a remeasurement of the railroads. This work the Board was unable to do by reason of the fact that no appropriation accompanied the order. The estimated cost of a remeasurement of the railroads is indicated by Mr. Hayes as \$5,000, and if in the opinion of the general court it is advisable that the work be done the necessary appropriation should be made therefor.

WALTER PERLEY HALL,  
GEORGE W. BISHOP,  
CLINTON WHITE,

JULY 12, 1911. [8233]

*Commissioners.*

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REPORT OF STATE ENGINEER.

OFFICE OF THE ATTORNEY-GENERAL, BOSTON, July 1, 1911.

*To the Board of Railroad Commissioners, 20 Beacon St., Boston, Mass.*

GENTLEMEN:—In regard to the mileage rates for passenger transportation in this commonwealth, I have the honor to report as follows:—

The method of examination has been to compare the rates as filed with the interstate commerce commission with the distances as given in the employees' time cards as issued by the operating departments of the railroads, there being, as far as I know, no other information available. These distances are compiled by the engineering departments of the railroads from actual measurements.

*New York, New Haven and Hartford Railroad.*

The passenger department states that there has been no change in mileage fares collected or in the distances from which such fares are computed, excepting possible corrections, within the last ten years.

My examination of the rates shows that at eight stations fare is collected for one mile more than should be under chapter 649, Acts of 1903, and that there are many stations where one mile less is taken than is authorized by said act.

*Boston and Maine Railroad.*

The passenger department states that there have been no changes in mileage rates in recent years, excepting that between May, 1909, and July, 1910, new tariffs were issued to bring the rates into conformity with chapter 649, Acts of 1908.

My examination shows that there are eight stations where one mile more than should be is collected, due to a remeasurement which had not been reported to the passenger department; also that there are several stations where less is collected than is authorized by said act.

*Boston and Albany Railroad.*

The passenger department states that there have been no material changes in the mileage tariff since 1883, excepting slight changes due to a remeasurement of the main line in 1903, and that previous to 1908 where the fraction of the mile traveled was less than twenty-five one-hundredths, the fraction was not charged for, and where the fraction exceeded twenty-five one-hundredths, an additional mile was taken up. At the present time the rates conform to the act above mentioned.

*Central Vermont Railway.*

The passenger department states that the distances for which mileage rates are charged have not been changed since the road was leased in 1891.

I find that six rates, in the tariff as filed, are one mile in excess and fifty-four are one mile less than is authorized by the above-mentioned act.

*Central New England Railway.*

The passenger department states that there have been no changes in the mileage rates in years and I find that the rates as filed are as authorized by the act above mentioned.

*Grafton and Upton Railroad.*

No mileage books are issued.

*Boston, Revere Beach and Lynn Railroad.*

No mileage books are issued.

*Hoosac Tunnel and Wilmington Railroad.*

The mileage rates are as authorized by the act above mentioned.

The above errors have been corrected by the several railroad companies by the issuance of new tariffs, or supplements to old tariffs, and these corrections are now effective.

*Cost of Remeasurement.*

Assuming that the work would be done at a favorable season of the year, I estimate that the railroads in the commonwealth could be measured, and the distances compared with the tariffs, in three months' time at an expense of \$5,000.

Very respectfully,

H. W. HAYES,  
*Engineer of Grade Crossings.*

*Report of the Board on an order of the house of representatives relative to transportation facilities on the Boston and Maine Railroad.*

*To the Honorable the House of Representatives:*

On May 19, 1911, the house of representatives adopted the following:—

*Ordered,* That the board of railroad commissioners be and hereby is instructed to investigate recent and proposed decreases in the transportation facilities on the Boston and Maine railroad. The Board shall give a public hearing or public hearings to parties interested and affected by such decreases, and shall report to the house not later than June tenth whether the decreases are justified from the standpoint of public interest; and may submit such other findings as may be considered desirable. Said investigation shall cover passenger facilities only, and also whether said facilities have increased or decreased since July, 1909.

Pursuant to the foregoing order, the Board proceeded in the investigation as instructed by the house of representatives, gave a public hearing, duly notified, and now makes report under the terms of the order.

The daily time-table passenger mileage of the Boston and Maine railroad in Massachusetts is shown in the following table:—

<i>Winter.</i>			<i>Summer.</i>		
1908- 9,	.	20,437	1909,	.	22,885
1909-10,	.	20,570	1910,	.	23,475
1910-11,	.	22,500	1911,	.	22,653



The daily passenger mileage for the summer time-table of 1911 (22,653) is the figure indicated by the company as its present estimate and expectation of daily mileage to be shown by the time-table, which is not yet completed. The Board believes this estimate to be substantially accurate.

The summer schedule of passenger train service is to be effective on June 26, 1911.

Accompanying this report as exhibit "A" is a table of passenger trains discontinued between December 4, 1910, and March 27, 1911, showing point of origin and destination, scheduled time of leaving, present schedule of previous and subsequent train, earnings per mile of trains withdrawn and mileage distances. No passenger trains have been withdrawn in Massachusetts since March 27, 1911, although the schedule has been changed in a few instances.

Also accompanying this report as exhibit "B" is a table of passenger trains to be added to the existing schedule June 26, 1911, with the number of miles in Massachusetts and the total mileage.

In addition to the foregoing tables and exhibits, the Board is officially advised by the management of the Boston and Maine railroad that there is no present expectation of material changes in the existing passenger schedule prior to the installation of the summer schedule.

An examination of exhibit "A" discloses certain decreases from the winter passenger schedule of 1910-1911, amounting in the aggregate to 1,030 daily train miles withdrawn in Massachusetts; still leaving an increase for this period in daily passenger train service over the same period in 1909-1910 of 900 daily train miles. The management proposes to increase this mileage in its summer time-table for 1911 by about 1,183 miles, exclusive of trains to be run Saturdays and Sundays only. Of course it must be understood that the actual train mileage is always in excess of the schedule mileage, due to extra trains, running of scheduled trains in sections, and the like.

The foregoing figures and estimates found in the tables and exhibits have been prepared by the management of the Boston and Maine railroad at the request of the Board, and taken together answer all the inquiries of the general court except the one of justification of withdrawals.

The remaining question is whether the decreases are justified

from the standpoint of public interest. In answering this inquiry we are assuming that the inquiry is restricted to the jurisdiction of the commission, and includes only the service in the commonwealth of Massachusetts. In view of the improvements in passenger train service, especially by express, and particularly upon the Portland division (comprising the old Eastern and Western divisions), and the further fact that more or less of the withdrawals of local service to this date are in territory served by other carriers, the Board is of opinion that the withdrawals, taken as a whole, in connection with the improvements made, are justified.

In making this finding, we distinctly wish the house of representatives to understand that we are not adjudicating any specific cases, but are speaking of the situation as a whole. We do not conceive it our duty under the order to pass upon specific trains or train schedules so withdrawn.

With respect to any proposed changes of existing passenger train schedules to be effective upon the installation of the summer schedule, we are not sufficiently informed by the Boston and Maine railroad, in view of the fact that the schedule is not yet completed, as to the specific proposed withdrawals, changes of running time and station stops; and we are therefore unable, within the time limit of the order, to make any finding with respect to the justification of such proposed decreases as a whole. Any changes if made, either by withdrawal or rearrangement of running time or station stops, can be adjudicated by the Board when effective, upon the merits of specific cases.

WALTER PERLEY HALL,  
GEORGE W. BISHOP,  
CLINTON WHITE,

JUNE 10, 1911. [8296]

*Commissioners.*

## A.

PASSENGER TRAINS DISCONTINUED IN MASSACHUSETTS BETWEEN DECEMBER 4, 1910, AND MARCH 27, 1911.

*Portland Division.*

FROM	To	Time.	Previous Train.	Subsequent Train.	Train Mile Earnings.	Miles.
Boston, . .	Haverhill, . .	2.00 P.M.	1.15	2.15	\$1 11	-
Boston, . .	Haverhill, . .	4.53 P.M.	4.30	5.15	1 06	-
Boston, . .	Haverhill, . .	10.30 P.M.	9.35	11.25	77	99
Haverhill, . .	Boston, . .	7.47 A.M.	-	7.53	1 15	-
Haverhill, . .	Boston, . .	10.35 P.M.	10.30	-	24	66
Haverhill, . .	Lawrence, . .	1.22 P.M.	1.02	2.39	-	-
Haverhill, . .	Lawrence, . .	6.28 P.M.	6.05	6.41	60	14
Lawrence, . .	Haverhill, . .	9.50 P.M.	9.02	10.27	-	7
Lawrence, . .	Boston, . .	6.52 P.M.	6.18	7.04	50	26
Boston, . .	Medford, . .	10.50 A.M.	9.35 A.M.	12.00 M.	13	-
Boston, . .	Medford, . .	12.47 P.M.	12.00 M.	1.47 P.M.	26	-
Boston, . .	Medford, . .	6.25 A.M.	-	6.53	02	-
Boston, . .	Medford, . .	10.10 P.M.	9.05	11.30	39	-
Medford, . .	Boston, . .	6.06 A.M.	-	6.15	40	-
Medford, . .	Boston, . .	11.50 A.M.	10.07	12.47	24	-
Medford, . .	Boston, . .	1.20 P.M.	12.47	2.13	36	-
Medford, . .	Boston, . .	9.40 P.M.	9.30	11.00	10	40
Danvers, . .	Georgetown, . .	6.16 P.M.	5.38	7.19	16	-
Georgetown, . .	Danvers, . .	6.50 P.M.	6.06	-	03	24
Lawrence, . .	Manchester, . .	12.14 P.M.	9.18	1.08	38	-
Manchester, . .	Lawrence, . .	8.48 P.M.	5.40 P.M.	-	16	52
Boston, . .	Lynn (S. Br.), . .	9.05 A.M.	8.05	11.52	36	-
Boston, . .	Lynn (S. Br.), . .	12.55 P.M.	11.52	2.00	55	26
Lynn, . .	Boston, . .	3.01 P.M.	1.35	4.09	37	-
Lynn, . .	Boston, . .	8.33 P.M.	7.04	10.10	31	24

*Southern Division.*

Boston, . .	Wayland, . .	7.35 A.M.	-	8.09	33	-
Wayland, . .	Boston, . .	9.02 A.M.	8.39	9.25	69	34
Boston, . .	Marlborough, . .	4.35 P.M.	3.57	4.46	-	-
Marlborough, . .	Boston, . .	2.35 P.M.	1.20	4.20	24	62
Bedford, . .	Reformatory, . .	5.26 P.M.	4.34	7.01	18	-
Reformatory, . .	Bedford, . .	6.32 A.M.	-	7.28	10	14

PASSENGER TRAINS DISCONTINUED IN MASSACHUSETTS, ETC. — *Con.**Fitchburg Division.*

FROM	TO	Time.	Previous Train.	Subsequent Train.	Train Mile Earnings.	Miles.
Boston, . .	Roberts, . .	10.45 A.M.	10.00	12.05 P.M.	\$0 43	11
Boston, . .	Waltham, . .	8.37 P.M.	8.32	9.00	25	10
Roberts, . .	Boston, . .	2.55 P.M.	2.23	3.38	49	11
Waltham, . .	Boston, . .	7.40 P.M.	7.11	8.10	40	10
Fitchburg, . .	Greenfield, . .	11.01 A.M.	10.53	1.25	23	56
Fitchburg, . .	Greenfield, . .	4.50 P.M.	3.32	5.15	62	-
Worcester, . .	Winchendon, . .	1.37 P.M.	11.45	3.25	41	-
Worcester, . .	Winchendon, . .	7.16 P.M.	6.15	-	22	-
Winchendon, . .	Worcester, . .	4.45 A.M.	-	7.20	27	-
Winchendon, . .	Worcester, . .	1.35 P.M.	10.25	3.20	57	144

*Connecticut River Division.*

Springfield, . .	Holyoke, . .	8.30 A.M.	8.00	9.10	-	-
Springfield, . .	Holyoke, . .	9.45 A.M.	9.10	10.30	\$0 24	-
Springfield, . .	Holyoke, . .	11.15 A.M.	10.30	11.55	40	24
Springfield, . .	Northampton, . .	1.30 P.M.	1.00	2.00	34	-
Springfield, . .	Northampton, . .	3.00 P.M.	2.30	3.30	39	-
Springfield, . .	Northampton, . .	4.00 P.M.	3.30	4.30	-	-
Springfield, . .	Northampton, . .	6.50 P.M.	6.17	7.30	56	-
Springfield, . .	Northampton, . .	9.20 P.M.	8.25	9.45	-	85
Northampton, . .	Springfield, . .	8.30 A.M.	8.26	9.45	41	17
Holyoke, . .	Springfield, . .	9.10 A.M.	8.40	10.02	31	-
Holyoke, . .	Springfield, . .	10.30 A.M.	10.02	11.22	44	-
Holyoke, . .	Springfield, . .	11.40 A.M.	11.22	12.20	-	24
Northampton, . .	Springfield, . .	3.50 P.M.	3.26	4.35	47	-
Northampton, . .	Springfield, . .	5.10 P.M.	4.35	5.36	81	-
Northampton, . .	Springfield, . .	8.45 P.M.	8.17	9.15	10	-
Northampton, . .	Springfield, . .	10.45 P.M.	9.55	11.00	-	68
Worcester, . .	Lancaster, . .	9.09 A.M.	8.00 A.M.	9.35 A.M.	17	-
Lancaster, . .	Worcester, . .	9.58 A.M.	9.28 A.M.	1.19 P.M.	09	38
						1,076
Deduct mileage in New Hampshire for Lawrence-Manchester, state line to Manchester, N. H., . . . . .						46
						1,030

## B.

PASSENGER TRAINS TO BE ADDED TO THE EXISTING SCHEDULE ON  
JUNE 26, 1911.

FROM	Time.	FOR	Miles in Massa- chusetts.	Total Miles.
Worcester, . . .	1.22 A.M.	Portland, via Lowell and Lawrence, Bar Harbor express.	67	148
Boston, . . .	1.00 P.M.	Portland, Portland express, . . .	33	115
Boston, . . .	1.25 P.M.	Danvers, Saturday only, formerly ran Reading.	6	6
Worcester, . . .	2.04 P.M.	Portland, via Lowell and Lawrence, Portland express.	67	148
Portland, . . .	6.10 A.M.	Boston, Monday morning express, . . .	33	115
Newburyport, . . .	8.45 A.M.	Lowell, York Beach express, . . .	37	68
Portland, . . .	8.35 A.M.	Worcester, via Lowell and Lawrence, Portland day express.	67	148
Danvers, . . .	2.40 P.M.	Boston, Saturdays only, local, . . .	6	6
Portland, . . .	6.00 P.M.	Boston, Portland express, . . .	33	115
Portland, . . .	9.40 P.M.	Worcester, via Lowell and Lawrence, Bar Harbor express.	67	148
Boston, . . .	9.20 A.M.	Marblehead, . . . . .	17	17
Boston, . . .	9.25 A.M.	Intervale, White Mountains express, . . .	41	140
Boston, . . .	10.00 A.M.	Portland, Bar Harbor express, . . .	41	108
Boston, . . .	12.44 P.M.	Lynn, Saturday only, local, . . .	12	12
Beverly, . . .	1.45 P.M.	Hamilton, Saturday only, local, . . .	4	4
Boston, . . .	1.16 P.M.	Lynn, Saugus Branch, Saturday only, . . .	13	13
Boston, . . .	1.20 P.M.	Rockport, Saturday only, . . .	35	35
Boston, . . .	1.22 P.M.	Marblehead, . . . . .	17	17
Boston, . . .	2.00 P.M.	Rockport, Saturday only, . . .	35	35
Boston, . . .	2.25 P.M.	Marblehead, . . . . .	17	17
Boston, . . .	3.10 P.M.	York Beach, . . . . .	41	68
Boston, . . .	3.50 P.M.	Marblehead, . . . . .	17	17
Boston, . . .	4.00 P.M.	Rockport, . . . . .	35	35
Boston, . . .	5.07 P.M.	Rockport, . . . . .	35	35
Beverly, . . .	8.34 P.M.	Hamilton, . . . . .	4	4
Portland, . . .	4.00 A.M.	Boston, Bar Harbor express, . . .	41	108
Beverly, . . .	6.15 A.M.	Salem, . . . . .	2	2
Rockport, . . .	7.55 A.M.	Boston, Gloucester express, . . .	35	35
Lynn, . . .	9.34 A.M.	Boston, Saugus Branch, . . .	13	13
Intervale, . . .	10.30 A.M.	Boston, White Mountains express, . . .	41	140
Hamilton, . . .	2.40 P.M.	Boston, Saturday only, . . .	23	23
Portsmouth, . . .	2.20 P.M.	Boston, . . . . .	41	57
Lynn, . . .	3.01 P.M.	Boston, Saturday only, . . .	12	12
Rockport, . . .	3.10 P.M.	Boston, Saturday only, . . .	35	35

PASSENGER TRAINS TO BE ADDED, ETC. — *Continued.*

FROM	Time.	FOR	Miles in Massa- chusetts.	Total Miles.
Marblehead, . . .	6.11 P.M.	Boston, . . . . .	17	17
Marblehead, . . .	9.13 P.M.	Lynn, . . . . .	6	6
Hamilton, . . . .	9.40 P.M.	Beverly, . . . . .	4	4
Georgetown, . . .	7.35 P.M.	Newburyport, . . . . .	9	9
Boston, . . . . .	7.01 P.M.	Newburyport, via branch, Sunday only,	40	40
Newburyport, . . .	8.45 A.M.	Boston, via branch, <sup>via Jan.</sup> Sunday only, . . .	40	40
Lynn, . . . . .	9.48 P.M.	Marblehead, . . . . .	6	6
Marblehead, . . .	10.02 A.M.	Boston, . . . . .	17	17
Boston, . . . . .	8.36 A.M.	Marblehead, Sunday only, . . . .	17	17
Boston, . . . . .	9.31 A.M.	Marblehead, Sunday only, . . . .	17	17
Boston, . . . . .	1.01 P.M.	Marblehead, Sunday only, . . . .	17	17
Boston, . . . . .	4.01 P.M.	Marblehead, Sunday only, . . . .	17	17
Boston, . . . . .	6.46 P.M.	Marblehead, Sunday only, . . . .	17	17
Marblehead, . . .	9.27 A.M.	Boston, Sunday only, . . . . .	17	17
Marblehead, . . .	2.00 P.M.	Boston, Sunday only, . . . . .	17	17
Marblehead, . . .	5.16 P.M.	Boston, Sunday only, . . . . .	17	17
Marblehead, . . .	8.00 P.M.	Boston, Sunday only, . . . . .	17	17
Boston, . . . . .	8.45 P.M.	Rockport, Sunday only, . . . . .	35	35
Rockport, . . . .	8.42 P.M.	Boston, Sunday only, . . . . .	35	35
Hamilton, . . . . .	2.00 P.M.	Conomo, Saturday only, . . . . .	6	6
Conomo, . . . . .	3.40 P.M.	Hamilton, Saturday only, . . . . .	6	6
Boston, . . . . .	6.00 A.M.	Portland, Sunday only, . . . . .	33	115
Boston, . . . . .	10.00 A.M.	Portland, Sunday only, Portland express,	33	115
Portland, . . . . .	8.25 P.M.	Boston, Sunday only, Boston express, .	33	115
Portland, . . . . .	5.00 P.M.	Boston, Sunday only, Boston express, .	33	115
Boston, . . . . .	6.25 A.M.	Intervale, Sunday only, . . . . .	41	140
Intervale, . . . .	4.30 P.M.	Boston, Sunday only, . . . . .	41	140
Beverly, . . . . .	6.03 P.M.	Hamilton, Sunday only, . . . . .	4	4
Hamilton, . . . . .	6.59 P.M.	Beverly, Sunday only, . . . . .	4	4
Hamilton, . . . . .	9.00 P.M.	Beverly, Sunday only, . . . . .	4	4
Beverly, . . . . .	7.15 P.M.	Hamilton, Sunday only, . . . . .	4	4
Boston, . . . . .	9.30 A.M.	Bretton Woods, White Mountains ex- press.	33	206
Bretton Woods, . .	9.05 A.M.	Boston, White Mountains express, . .	33	206
Boston, . . . . .	9.25 P.M.	Lancaster, Sunday only, . . . . .	39	39
Lancaster, . . . .	4.50 P.M.	Boston, Sunday only, . . . . .	39	39
Boston, . . . . .	7.35 A.M.	Wayland, . . . . .	17	17

PASSENGER TRAINS. TO BE ADDED, ETC. — *Concluded.*

FROM	Time.	FOR	Miles in Massa- chusetts.	Total Miles.
Wayland, . . .	9.00 A.M.	Boston, . . . . .	17	17
Boston, . . .	1.40 P.M.	Ware, Saturday only, . . . . .	75	75
Ware, . . . .	6.45 A.M.	Boston, Monday only, . . . . .	75	75
Boston, . . .	7.10 P.M.	Ayer, . . . . .	36	36
Fitchburg, . .	4.03 P.M.	Boston, . . . . .	50	50
Ayer, . . . .	10.55 P.M.	Fitchburg, . . . . .	14	14
South Acton, .	2.15 P.M.	Gleasondale, Saturday only, . . . . .	5	5
Gleasondale, .	3.35 P.M.	South Acton, Saturday only, . . . . .	5	5
Hoosac Tunnel, .	11.04 A.M.	North Adams, Sunday only, . . . . .	7	7
North Adams, .	10.25 A.M.	Hoosac Tunnel, Sunday only, . . . . .	7	7
Worcester, . .	9.05 A.M.	Lancaster, . . . . .	19	19
Springfield, .	12.35 A.M.	Bretton Woods, White Mountains express, . . . . .	50	208
Lancaster, . .	10.02 A.M.	Worcester, . . . . .	19	19
Springfield, .	12.52 P.M.	Bretton Woods, White Mountains day ex- press, . . . . .	50	208
Greenfield, . .	3.40 P.M.	Keene, . . . . .	14	75
Bretton Woods, .	9.00 P.M.	Springfield, New York night express, . . . . .	50	208
Bretton Woods, .	8.45 A.M.	New York, White Mountains day express, . . . . .	50	208
Keene, . . . .	2.25 P.M.	New York, . . . . .	14	75
Springfield, .	4.00 P.M.	Northampton, . . . . .	17	17
Northampton, .	8.30 A.M.	Springfield, . . . . .	17	17
Lawrence, . .	8.33 A.M.	Salisbury, Sunday only, . . . . .	24	24
Salisbury, . .	7.53 P.M.	Lawrence, Sunday only, . . . . .	24	24

*Recommendation to officials of operating railroad companies as to  
notice of withdrawal of trains on holidays.*

*Circular Letter.*

DEAR SIR:— The Board recommends to the several railroad corporations that in addition to the customary notices and bulletins now given, all trains to be withdrawn on holidays be so indicated on time-tables and folders.

By order of the Board,

CHARLES E. MANN,  
*Clerk.*

JANUARY 23, 1911. [S137]

*Petition of the committee on transportation of the city council of Salem relative to fares on the Boston and Maine railroad between Salem and Lynn and between Salem and Boston.*

WILLIAM W. COOLIDGE for petitioners.

WILLIAM H. COOLIDGE for Boston and Maine Railroad.

The petitioners allege that the Boston and Maine Railroad is now charging an excessive rate of fare for a single ride in either direction between Salem and Lynn and between Salem and Boston. The fare between Salem and Lynn, a distance of 4.72 miles, is fifteen cents. The fare between Salem and Boston, a distance of 16.33 miles, is thirty-five cents. The Board agrees with the contention of the petitioners that fifteen cents is an excessive charge for a single ride between Salem and Lynn, and therefore recommends a reduction. The fare between Salem and Boston is at a rate very slightly in excess of two cents a mile, and we do not find such a charge to be unreasonable.

The Board desires it to be understood that in making the foregoing findings it confines itself to the specific issues before it, and no attempt is here made to lay down any principles with respect to passenger rates. It is clear, however, that the fare for a single ride on one of the main lines of the Boston and Maine system between large centers, like Lynn and Salem, should be at a rate of less than three and a fraction cents per mile.

By the Board,

CHARLES E. MANN,

MAY 12, 1911. [S206]

Clerk.

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*Complaint of Lyman F. Cobb and others, relative to the withdrawal of the early morning train to Worcester, over the division of the Boston and Maine railroad between Worcester and Winchendon.*

*Memorandum.*

It appears that the petitioner and certain members of his family, and possibly a few others, have used this train from North Woods station to Worcester.

The returns of the sale of commutation tickets between this station and Worcester, as made upon the Board's request, disclose



no sufficient demand on the part of the travelling public for the restoration of this service.

The order of the Board under date of April 10, 1883, is in no-wise inconsistent with this memorandum.

FEBRUARY 6, 1911. [C 1611]

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*Petition of residents of Middleborough for additional train service upon the New York, New Haven and Hartford railroad.*

Residents of Middleborough ask the Board to recommend additional train service between 8.30 and 9 A.M. from Middleborough to Boston, and between 4.30 and 5 P.M. from Boston to Middleborough.

Taking into consideration the amount of travel and the present service of thirteen trains a day in each direction between Middleborough and Boston, the Board is of opinion that a reasonably satisfactory and convenient service, as compared with other localities, is provided by the company. The Board, therefore, does not feel warranted in recommending the operation of an additional train to provide the service desired by the petitioners.

It appears, however, that the train service requested could be furnished if it were deemed advisable to have the morning train from Provincetown to Boston and the afternoon train from Boston to Provincetown stop at Middleborough. These trains, according to the present schedule, stop at all local stations between Provincetown and Buzzards Bay and run express between Buzzards Bay and Boston.

The outbound train leaves Boston at 4.38 P.M., and the running time to Buzzards Bay is one hour and nineteen minutes. As the Board, in view of all the transportation conditions, is unwilling to recommend that this train be run at any higher rate of speed, a stop at Middleborough would increase the present running time to Buzzards Bay and points beyond. It does not seem to the Board that the petitioners can reasonably demand additional service on this train, as their present service includes a train leaving Boston three minutes later, at 4.41 P.M., in addition to an earlier train at 4 P.M. and a later train at 5.05 P.M., and in view of the fact that the service requested can only be furnished at the expense of delay and inconvenience to patrons of the road who reside on Cape Cod. The latter necessarily have very few trains as compared with the residents of Middleborough, have a much longer distance to travel,

and are restricted to a local service for the greater part of the route. To make any change in existing schedules which would still further increase these inequalities of service would not, in our opinion, be in the general public interest.

These same considerations, in a general way, may be urged against the proposal that the inbound morning train from Provincetown shall stop at Middleborough. The request for this additional inbound service seems, however, to have more to recommend it than the request for additional service in the other direction. Under the present schedule there is no train from Middleborough to Boston between 7.54 A.M. and 9.24 A.M., and it was contended that the former train left Middleborough too early and the latter reached Boston too late to accommodate many patrons of the road. These objections to the present service could be met by having the inbound train from Provincetown which passes Middleborough at 9.01 A.M. stop at Middleborough. It seems to the Board that it might be possible to make this stop and, at the same time, maintain the company's present time schedule. The running time from Buzzards Bay to Boston, as shown by the company's time-table, is one hour and twenty-two minutes as against one hour and nineteen minutes in the other direction. If the inbound train should be run at the same rate of speed as the outbound train, allowance could be made for a three-minute stop at Middleborough without delaying the arrival of the train in Boston.

The Board therefore recommends that the inbound train which leaves Buzzards Bay at 8.30 A.M. shall stop at Middleborough. The Board also recommends that the company keep a daily record, for an experimental period of three months, of the number of passengers boarding the train at Middleborough and of the time of its arrival at Buzzards Bay, Middleborough and Boston. At the end of this experimental period the Board reserves the right, if the facts seem to warrant it, to consider the case anew in the light of all the evidence which may then be in the possession of the Board.

It is also to be understood that this stop at Middleborough establishes no precedent whatever for any other stopping of this express train, which is, beyond question, of great importance to those who live at a long distance from Boston, and which should therefore be brought in and sent out with all the expedition that is practicable.

By the Board,

CHARLES E. MANN,

NOVEMBER 1, 1911. [8491]

*Clerk.*

*Petition of J. C. Clark and others relative to train service on the New York, New Haven and Hartford railroad from Plymouth to Whitman.*

On January 21, 1910, the petitioners filed a request that the train which during the summer months leaves Plymouth at 6.30 A.M. and runs via Whitman to Boston be ordered into service, and after notice and hearing and further consideration the Board, on March 23, issued a report in which it said:

The Board recommends that this train, which it understands will be operated during the coming summer, be continued in service for an experimental period ending December 1, 1910, that a record of its use be kept from the date when the fall schedule becomes operative until November 15, and that a copy of said record be submitted to the Board as soon after that date as is practicable, for the purpose of determining whether the demands of the travelling public require the further continuance of the service.

The train having been continued in service in accordance with the above recommendation, it now appears from a record of its use that the demands of the travelling public do not require its further operation under the winter schedule, and the Board therefore approves the application of the company for its withdrawal.

For the Board,

CHARLES E. MANN,

JANUARY 14, 1911. [7644]

Clerk.

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*Petition of Sharon Improvement Association relative to passenger service on the New York, New Haven and Hartford railroad.*

The petitioners complain that passenger service upon the New York, New Haven and Hartford railroad, especially between Sharon and Boston in either direction, is insufficient. There is some further complaint with respect to connections at Mansfield.

It appears from the company's statement that the number of week-day passenger trains between Sharon and Boston in both directions is twenty-nine, and that the receipts for the business are substantially the same as they have been for ten years. The weight of the travel inbound is between the hours of six and nine

in the forenoon, and outbound between five and seven in the afternoon.

Having due regard to the amount of this travel and the number of trains scheduled to care for the same, the Board is of opinion that the Sharon station is afforded reasonable accommodation under the present schedule. The population of the township in 1910 was 2,310, served by a station at Sharon and one at Sharon Heights. The increase in travel between Sharon and Boston in either direction has been light, while the through travel shows a heavy increase. This fact to some degree must necessarily control the local schedule; and while the Board sees some advantage in setting back the time of one train now scheduled to leave Boston in the late afternoon, it finds such a recommendation to be unfeasible, in view of the fact that New York expresses leave at five and five-thirty P.M., respectively.

With respect to the connection at Mansfield, it appears that the Sharon travel is very light and the Board does not feel justified in recommending any change.

For the Board,

CHARLES E. MANN,

MARCH 6, 1911.

[8101]

Clerk.

*Petitions relative to suburban service on the New York, New Haven and Hartford railroad.*

*Memorandum.*

After hearings on the above matters the Board made a careful investigation of traffic conditions on the New York, New Haven and Hartford railroad between Pope's Hill station, South Boston station and the South Terminal, in the city of Boston, and in view of the number of trains operating upon this division, taken in connection with its through business, is unable in the whole public interest to make the recommendations prayed for by the petitioners. The four-tracking of the division now in process, and the consequent relief to the two tracks now furnishing the service, will doubtless remedy the situation to some extent. After repeated conferences with the passenger and operating departments of the company we are satisfied that the summer schedule, shortly to go into effect, will, in view of the present traffic facilities, give these stations reasonable service.

JUNE 5, 1911. [8145, 8195]

## STREET RAILWAY FARES AND SERVICE.

*Petitions of the mayor of the city of Boston, of improvement associations and of citizens for better transfer facilities on the Boston Elevated railway.*

JOSEPH A. CAMPBELL for City of Boston.

ARTHUR A. BALLANTINE for Boston Elevated Railway Company.

After notice and hearing and further consideration, — it is

*Ordered*, That the following new free transfer points be established in Boston on the West End street railway system, operated under lease by the Boston Elevated Railway Company:

1. At Massachusetts and Huntington avenues.
2. At Massachusetts and Columbus avenues.
3. At Northampton and Tremont streets.
4. At Northampton street and Shawmut avenue.
5. At Peabody square — junction of Dorchester and Talbot avenues.
6. At Franklin Field — junction of Blue Hill and Talbot avenues.
7. At Milton Lower Mills — junction of Dorchester avenue and Washington street.
8. At East Boston tunnel — at State and Washington or Devonshire streets.

*New Transfer Privileges.*

The new transfer privileges as above scheduled to be subject to the following restrictions in addition to the usual time limitations:

1. At Massachusetts and Huntington avenues.

(a) Transfers to be issued from cars routed via Massachusetts avenue reaching Huntington avenue from the *north* (direction of Harvard bridge) to outward bound Huntington avenue cars of Division Two.

(b) Transfers to be issued from cars routed via Massachusetts avenue reaching Huntington avenue from the *south* to outward bound Huntington avenue cars of Division Nine.

Either of the above transfers to be honored on extra cars outward bound via Huntington avenue, stopping short of Longwood avenue.

Passengers receiving such transfers shall not be given further transfers for use at Village square, Brookline, or other transfer stations further west than Massachusetts avenue.

(c) Transfers to be issued from inward bound cars of Division Two, restricted to passengers paying fare in cash after leaving

Village square, Brookline, or Jamaica Plain carhouse, to cars going north on Massachusetts avenue at Huntington avenue and to cars for South Boston reaching that point.

(d) Transfers to be issued from inward bound cars of Division Nine, restricted to passengers paying fare in cash after leaving Village square, Brookline, to cars going south on Massachusetts avenue at Huntington avenue and to cars for South Boston reaching that point.

(e) Transfers to be issued from cars from South Boston routed via Huntington avenue to Massachusetts avenue, restricted to passengers paying fare in cash before reaching Copley square, to outward bound Huntington avenue cars.

2. At Massachusetts and Columbus avenues.

(a) Transfers to be issued from south bound Columbus avenue cars, restricted to passengers paying fare in cash after leaving Berkeley street, to cars for Cambridge or Boylston street transfer station.

(b) Transfers to be issued from cars running southeast on Massachusetts avenue and Northampton street, excluding passengers originating east or north of Massachusetts avenue, restricted to passengers originating within the limits of the city of Boston and paying fare in cash or by check from Huntington avenue, to north bound Columbus avenue cars.

3. At Northampton and Tremont streets.

(a) Transfers to be issued from outward bound Tremont street cars, restricted to passengers originating and paying fare in cash south of Dover street, to cars on Northampton street bound southeast or northwest.

(b) Transfers to be issued from Northampton street cars bound either southeast or northwest, excluding passengers originating east or north of Massachusetts avenue, restricted to passengers originating within the limits of the city of Boston and paying fare in cash or by check from Huntington avenue, to north bound Tremont street cars.

4. At Northampton street and Shawmut avenue.

(a) Transfers to be issued from outward bound Shawmut avenue cars, restricted to passengers originating and paying fare in cash south of Dover street, to cars on Northampton street bound southeast or northwest.

(b) Transfers to be issued from Northampton street cars bound either southeast or northwest, excluding passengers originating east or north of Massachusetts avenue, restricted to passengers orig-

inating within the limits of the city of Boston and paying fare in cash or by check from Huntington avenue, to north bound Shawmut avenue cars.

5. At Peabody square — junction of Dorchester and Talbot avenues.

(a) Transfers to be issued from outward bound Talbot avenue cars to outward bound Dorchester avenue cars, except to passengers whose fare is paid by means of a free transfer from an inward bound Blue Hill avenue car.

(b) Transfers to be issued from inward bound Dorchester avenue cars, restricted to passengers paying fare in cash, north of Milton Lower Mills, to inward bound Talbot avenue cars.

This free transfer privilege to be established at Peabody square may be discontinued if and when the Talbot avenue line of cars is extended to Milton Lower Mills.

6. At Franklin Field — junction of Blue Hill and Talbot avenues.

(a) Transfers to be issued from inward bound Blue Hill avenue cars, restricted to passengers paying fare in cash after leaving Mattapan, to outward bound Talbot avenue cars.

(b) Transfers to be issued from inward bound Talbot avenue cars, restricted to passengers paying fare in cash after leaving Peabody square, to outward bound Blue Hill avenue cars.

(c) All inward bound cars reaching the junction of Blue Hill avenue and Talbot avenue to issue checks to inward bound cars of any other line.

(d) All outward bound cars reaching the junction of Blue Hill avenue and Talbot avenue to issue checks to outward bound cars of any other line.

7. At Milton Lower Mills — junction of Dorchester avenue and Washington street.

(a) Transfers to be issued from Dorchester avenue cars reaching Milton Lower Mills, restricted to passengers paying fare in cash south of Fields Corner, to inward bound cars via River street.

(b) Transfers to be issued from outward bound River street cars, restricted to passengers paying fare in cash after leaving Washington and Ashland streets, Roslindale, to inward bound Dorchester avenue cars.

8. At East Boston tunnel — at State and Washington or Devonshire streets.

(a) Transfers to be issued from inward bound East Boston tunnel cars, restricted to passengers paying fare in cash at East

Boston or Chelsea, to surface cars south bound on Washington street at State street or south bound on Devonshire-Congress-Federal street at State street.

(b) Transfers to be issued from inward bound East Boston tunnel cars, restricted to passengers paying fare in cash in East Boston or Chelsea, to north bound cars via Devonshire street at State street. Such north bound transfers shall not be honored on Devonshire street cars routed for Hanover street, nor shall passengers presenting such transfers for fare be entitled to further free transfers to any elevated station or surface line.

(c) Transfers to be issued from Washington street and from Devonshire street cars south bound, restricted to passengers paying fare in cash, to east bound cars in the East Boston tunnel at Devonshire street station, restricted on Hanover street cars to cash passengers received after reaching Washington street.

(d) Transfers to be issued from cars routed north via Congress, State and Devonshire streets, restricted to passengers paying fare in cash, to east bound cars in the East Boston tunnel at Devonshire street station.

And it is further

*Ordered*, That the following enlargements of existing transfer privileges be established:

9. At Northampton and Washington streets.

10. At Public Garden — Church street.

*Enlargements of Existing Privileges.*

9. At Northampton and Washington streets.

(a) Transfers to be issued from south bound Washington street cars, restricted to passengers originating south of Dover street and paying fare in cash, to Northampton street cars bound northwest.

(b) Transfers to be issued from Northampton street cars bound southeast, restricted to passengers originating within the limits of the city of Boston and paying fare in cash or by check from Huntington avenue, to north bound Washington street cars.

10. At Public Garden — Church street.

(a) Transfers to be issued from any south bound Charles street car, restricted to passengers paying fare in cash after leaving Lechmere square transfer station, Cambridge bridge transfer station, or Bowdoin square, to any car bound west from the subway.

(b) Transfers to be issued from any inward bound subway car at Public Garden to north bound cars routed via Charles street



taken at Public Garden or Charles street and Park square, restricted on Harvard bridge cars to cash passengers received after passing Grand Junction railroad. Passengers paying fare with such checks are not entitled to further transfer.

The company offers to enlarge the scope of the existing transfer between surface cars and elevated trains at Egleston square station, as follows:

(a) Transfers to be issued from inward bound Seaver street-Columbus avenue cars good on elevated trains at Egleston square either north or south bound.

(b) Transfers to be issued from north bound elevated trains at Egleston square to be honored on south bound Seaver street-Columbus avenue cars.

The company also offers to establish certain changes in existing privileges desired by citizens of Cambridge, as follows:

1. At Central square, Cambridge.

(a) Transfers to be issued from Brookline street cars, restricted to passengers originating in Cambridge, to and from East Cambridge and Western avenue cars.

(b) Transfers to be issued from inward bound Western avenue cars and outward bound cars from East Cambridge, restricted to passengers originating in Cambridge, to cars for Pearl street.

(c) Transfers to be issued from inward bound Massachusetts avenue cars, restricted to passengers paying fare in cash after leaving Harvard square, to cars for East Cambridge.

(d) Transfers to be issued from outward bound cars from East Cambridge, restricted to passengers paying cash fare in Cambridge, to outward bound cars for Harvard square.

(e) Transfers to be issued from inward bound River street or Western avenue cars to cars for East Cambridge.

(f) Transfers to be issued from outward bound East Cambridge cars, restricted to passengers paying fare in cash in Cambridge, to outward bound River street or Western avenue cars.

2. At Broadway and Prospect street, Cambridge.

(a) Transfers to be issued from Broadway cars from Harvard square, restricted to passengers paying fare in cash, to cars for East Cambridge.

(b) Transfers to be issued from outward bound East Cambridge cars, restricted to passengers paying fare in cash in Cambridge, to Broadway cars for Harvard square.

3. At Massachusetts avenue and Boylston street, Boston.

(a) Transfers to be issued from Cambridge-Cottage Farm cars,

restricted to passengers paying fare in cash in Cambridge, to outward bound Boylston street cars.

(b) Checks issued for transfer at Massachusetts avenue and Boylston street "To Harvard Bridge" may also be honored by cars running to Cambridge via Beacon street, Commonwealth avenue and Cottage Farm bridge.

This order is to be effective July 1, 1911, with the understanding that the company will from time to time prior to said date install as many of the transfers as possible.

Attest: CHARLES E. MANN,  
MAY 13, 1911. [8176] \_\_\_\_\_ Clerk.

*Application of the Boston Elevated Railway Company for approval of establishment of free transfer at the South station in Boston.*

After consideration, — it is

*Ordered,* That the approval of the Board be hereby given to the establishment by the Boston Elevated Railway Company of a free transfer at the South station in Boston, so that passengers on southbound elevated trains may transfer to the Summer street extension surface lines, and that passengers on the Summer street extension line bound from South Boston to Boston may transfer to the elevated at South station northbound.

Attest: CHARLES E. MANN,  
JULY 25, 1911. [8311] \_\_\_\_\_ Clerk.

*Application of the Boston Elevated Railway Company for approval of establishment of free transfer at Sullivan square in Charlestown.*

After consideration, — it is

*Ordered,* That the approval of the Board be hereby given to the establishment by the Boston Elevated Railway Company of a free transfer from one inward bound night car to an inward bound night car running over another route, the transfer to be made at Sullivan square, Charlestown.

Attest: ALLAN BROOKS,  
AUGUST 24, 1911. [8311] \_\_\_\_\_ Assistant Clerk.

*Application of the Boston Elevated Railway Company for approval of establishment of temporary free transfer at Central square in East Boston.*

After consideration, — it is

*Ordered*, That the approval of the Board be hereby given to the establishment by the Boston Elevated Railway Company of a temporary free transfer from inward bound Chelsea-Central avenue cars to passengers boarding cars in Chelsea to outward bound Meridian street cars, the transfer to be made at Central square, East Boston.

Attest:

ALLAN BROOKS,

AUGUST 17, 1911.

[8311]

*Assistant Clerk.*

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*Petition of residents of Cambridge relative to the restoration of certain stopping points on the Boston Elevated railway on Massachusetts avenue between Putnam square and Harvard square in the city of Cambridge.*

Certain stops on Massachusetts avenue in Cambridge formerly effective but now withdrawn by the Boston Elevated Railway Company were located as follows: outbound, at Trowbridge street, Remington street, opposite Plympton street, and at a point nearly opposite the middle of the block on Massachusetts avenue bounded by Linden and Holyoke streets; inbound, at a point near the middle of the block bounded by Linden and Holyoke streets, at Plympton street, opposite Remington street near Arrow street, and at Mount Auburn street near its intersection with Massachusetts avenue at Putnam square. In substitution for these stops the company has installed a stop inbound and outbound near the center of the block on Massachusetts avenue between Trowbridge and Remington streets, and an inbound and outbound stop near Linden street. The change in the aggregate amounts to the withdrawal of two outbound and two inbound stops.

The Board is of opinion that the present arrangement is in the public interest with respect to the withdrawal of the stops in both directions at Plympton street and in the block bounded by Linden and Holyoke streets, and the substitution therefor of stops in both directions at or near Linden street. Four stops at a comparatively short distance apart are now combined into two stops, with the consequent saving of running time.

A further consideration that leads us to the above conclusion is that upon the opening for use of the Cambridge subway a substantial proportion of the boarding and discharging of passengers at or near these points will be discontinued.

The situation at Remington street, Trowbridge street and at Putnam avenue and Mount Auburn street at Putnam square is quite different. The substitution of one inbound and one outbound stop here for the two inbound and two outbound stops unduly increases the distance between stops. In addition to this consideration, the opening for use of the Cambridge subway will not tend at this point to materially decrease the surface travel. We are therefore of opinion that a substantial number of the travelling public are deprived of the service to which they are entitled by the withdrawal of the stops formerly maintained upon either side of Putnam square, and at Remington street and opposite thereto, and recommend to the company that they be reinstalled with the right to discontinue the substituted stop, inbound and outbound, now in force.

By the Board,

CHARLES E. MANN,

JUNE 29, 1911. [8297]

Clerk.

*Supplementary Order.*

Subsequent to the issuance of an order by the Board on June 29, 1911, the Boston Elevated Railway Company verbally applied for a modification of the recommendation embodied therein to the extent of permitting the company to install and maintain an outbound stopping post on Massachusetts avenue on the easterly side of Trowbridge street substantially opposite the location of the post formerly maintained on the other side of the avenue, in lieu of the post formerly maintained on the avenue westerly of Trowbridge street. The Board is of opinion that such change will be convenient for travellers and in the public interest, and therefore modifies its order of June 29, 1911, to conform to this view.

For the Board,

CHARLES E. MANN,

JULY 11, 1911. [8297]

Clerk.

*Petition of the selectmen of Attleborough relative to reduced rate of fare for workingmen on the Interstate Consolidated street railway and*

*Petition of the selectmen of Attleborough relative to inadequate service on the Interstate Consolidated street railway.*

*Memorandum.*

After hearing and further investigation, the Board recommends the installation of additional service on the County road line, so called, at morning and night. It appears that a double truck 44-seat car would substantially relieve conditions, but we leave to the company the immediate installation of a service sufficient to meet this want. The Board further recommends the acquisition by the company of at least three additional cars, to make adequate provision for present and future service; and requests the company to keep and return to the Board, within two weeks, an account of the number of cars and passengers leaving Attleborough on the County road line and on the East Side line, between twelve o'clock noon and seven o'clock in the afternoon.

The Board suspends action with respect to the application for workingmen's fares pending this report and the acquisition by the company of increased equipment as set out above.

In conclusion the Board desires the company to realize that not only do the demands of the travelling public require the immediate installation of additional service, but that the company is bound in good faith to provide adequate equipment, not only for the present, but for the reasonable anticipated demands of the near future.

JANUARY 21, 1911. [8121, 8122]

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*Petition of the mayor of Brockton relative to transfers on the Old Colony street railway.*

This petition presents a case that has been before the Board on several previous occasions. On September 15, 1910, a similar application was dismissed, it appearing that the conditions had not materially changed. Nothing now appears showing a different situation from that then before the Board, and we must adhere to our former rulings. The petition is accordingly dismissed.

For the Board,

CHARLES E. MANN,

JULY 13, 1911. [8364]

*Clerk.*

*Petition of the Middlesex and Boston Street Railway Company for approval of continuance of withdrawal of free transfers.*

After a public hearing upon this application the Board requested, and has now received from the company, a tabulation of its operations for the year ending June 30, 1911. This statement is preliminary to its annual return, to be filed later under the provisions of law. While an examination of this statement discloses a better financial condition of the company, we have not sufficient information before us to make a final order in the premises. Without therefore granting the petition for any specific time, the company is authorized to continue the withdrawal of free transfers until further action by the Board. Upon receipt of the annual return, the Board reserves the right, without further notice, to issue such order as the public interests may require.

For the Board,

ALLAN BROOKS,

AUGUST 3, 1911. [8383]

Assistant Clerk.

*Petition of the selectmen of Weymouth and of the transportation committee of the Weymouth board of trade relative to service and accommodations on the Old Colony street railway.*

A. S. WORTHEN for petitioners.

B. W. WARREN for Old Colony Street Railway Company.

The winter schedule of the Old Colony Street Railway Company has reduced the number of cars operated through the town of Weymouth on the "Braintree-Rockland" line, so called. The petitioners allege that this reduction of service is an inconvenience to the public, and inadequate. The company presents a return of riding under the reduced schedule and urges that the present schedule is adequate.

While the issue is a close one, the Board is of opinion that it ought not to disturb the existing schedule, in view of the assurances of the company that the old service will be restored in the spring when the summer schedule goes into effect.

The Board, however, is of opinion that the number of cars under the summer schedule of 1911 should not be reduced at the close of the season until it has had a full opportunity to further study

the riding under that schedule after the summer riding decreases, and therefore recommends to the company that, after the restoration of its summer service in Weymouth upon the Braintree-Rockland line, it be continued until further action by the Board, the petitioners and the company having the right to bring the matter again to its attention upon the petition now before it.

For the Board,

CHARLES E. MANN,

MARCH 6, 1911.

[S153]

Clerk.

*Petition of W. A. Bellamy, in behalf of residents of Taunton, relative to fares on the Taunton and Pawtucket street railway in Taunton.*

W. A. BELLAMY for petition.

J. W. BURKE for Taunton and Pawtucket Street Railway Company.

The petition, briefly re-stated, is an application for a recommendation by the Board that the Taunton and Pawtucket Street Railway Company establish a five-cent fare zone co-extensive with its line in the city of Taunton. However desirable a single five-cent fare within the limits of a municipality may be, the question reserved for the Board's consideration in all cases of this character must be the reasonableness of the rate. Among other factors to be taken into consideration, and by no means the least important, in making any adjudication with respect to such reasonableness, is the return upon capital invested and the necessity of permitting the carrier to make adequate provision for the maintenance of the plant.

On May 21, 1908, the Board dismissed a petition for a recommendation that there be a decrease in rates then effective on the Taunton and Pawtucket street railway. At that time the Board made a careful study of the whole situation, including the finances of the company. A further examination, made at this time, convinces us that the fares established by the company on that part of its line in the city of Taunton are not unreasonable. It is to be remembered that the last annual report of the company was, by force of law, for a nine months' period only, and that upon June 30, 1911, a twelve months' financial year will be concluded. Upon

the filing by the company of the return for the year ending June 30, 1911, the Board will have before it certain additional information that may tend to modify its present views, and in such event will be prepared to modify this finding if in its opinion the public interest so requires.

By the Board,

CHARLES E. MANN,  
*Clerk.*

JUNE 29, 1911. [S316]



## BRIDGES, RAILROAD AND RAILWAY.

## BRIDGES AT HEIGHT LESS THAN EIGHTEEN FEET.

*Petition of the City of Boston for approval of height of bridge over the Boston, Revere Beach and Lynn railroad in that city.*

The members of this Board having by action of the Superior Court sat as a special commission in the matter of the petition of the mayor and aldermen of the city of Boston for the abolition of grade crossings of certain highways and the tracks of the Boston, Revere Beach and Lynn Railroad Company in the city of Boston, and having agreed upon a report, providing for the construction of an overhead bridge at Saratoga street at a height of less than eighteen (18) feet above the tracks of the railroad, — it is

*Ordered*, That the consent of the Board be hereby given to the construction of a bridge over the tracks of the Boston, Revere Beach and Lynn railroad at Saratoga street in the city of Boston at a clear height of sixteen (16) feet between the top of the rails and the under side of the bridge, as shown on a plan entitled “Plan for abolition of grade crossing on the Boston, Revere Beach and Lynn railroad at Saratoga street” and dated March 15, 1911.

Attest:                      ALLAN BROOKS,  
MARCH 29, 1911.      [7321]                      *Assistant Clerk.*

During the year the Board has also approved height of bridges over railroad tracks, as follows:

*Boston and Maine Railroad.*

Gloucester, January 12, 1911 — At Centennial avenue, at a clear height of sixteen (16) feet above the tracks of the railroad. [8144]

Groton, April 28, 1911 — At West street and Pleasant street, at a clear height of not less than sixteen (16) feet above the tracks of the railroad. [8248]

Westford, January 24, 1911 — Over the Stony Brook branch, at a clear height of sixteen (16) feet above the tracks of the railroad. [8152]

## APPROVAL OF STREET RAILWAY BRIDGE PLANS.

During the year ending December 31, 1911, the Board, on the recommendation of Professor George F. Swain, consulting engineer, has approved plans submitted for street railway bridges, as follows:

*Berkshire Street Railway.*

Lee, October 5, 1911 — Plan of superstructure of bridge at station 89, and plan of superstructure of girder beam bridge at station 45+25, on the East Lee extension. [8471]

Lee, October 16, 1911 — Plans for concrete arch bridge. [8471]

CAPITAL STOCK AND BONDS.

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*Petition of the Boston Elevated Railway Company for approval  
of an issue of bonds.*

It appearing, after notice and hearing and further investigation, that the proposed issue of bonds is for lawful purposes and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to the issue by the Boston Elevated Railway Company of coupon or registered bonds to an amount not exceeding at par value five million dollars (\$5,000,000), payable not more than thirty years from date thereof and bearing interest at a rate not exceeding five per cent per annum, as an issue of bonds reasonably necessary and of the amount required for the purposes to which the proceeds of such bonds are to be applied as hereinafter specifically set out, the items of expenditure being named in a schedule on file with the petition:

1. The proceeds of bonds amounting at par value to five hundred thousand dollars (\$500,000) shall be applied exclusively toward the payment of the necessary cost incurred and to be incurred in the construction and equipment of the elevated structure, foundations, tracks and electric system.

2. The proceeds of bonds amounting at par value to two million four hundred thousand dollars (\$2,400,000) shall be applied exclusively toward the payment of the necessary cost incurred and to be incurred in the construction and equipment of power and transformer stations.

3. The proceeds of bonds amounting at par value to two million one hundred thousand dollars (\$2,100,000) shall be applied exclusively toward the payment of the necessary cost incurred and to be incurred in the construction, connection and equipment for use and operation of the elevated railways which the company is authorized to construct by chapter 520 of the Acts of 1906, and their appurtenances and terminals, and the cost of acquisition of any land or lands in connection therewith.

Any excess in the proceeds of this issue of bonds which may be

realized from premiums shall be held for such application to cost of other permanent additions to and improvements in the property of the company as the Board shall hereafter approve.

OCTOBER 17, 1911.      Attest:      CHARLES E. MANN.  
[8497]      Clerk.

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*Petition of the Boston Railroad Holding Company for approval of an issue of preferred stock.*

It appearing, after notice and hearing and further investigation, that the petition is brought under the provisions of chapter 519 of the Acts of 1909 and chapter 639 of the Acts of 1910, and it further appearing that the proposed issue of preferred stock is for a lawful purpose and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to an issue by the Boston Railroad Holding Company, at the price of one hundred dollars (\$100) per share, as fixed by its stockholders, of not exceeding seventy thousand four hundred and twenty-four (70,424) shares of four per cent (4%) cumulative preferred stock, amounting at par value to seven million forty-two thousand four hundred dollars (\$7,042,400), having the privileges, priorities, restrictions, qualifications and limitations provided in chapter 639 of the Acts of 1910, and subject to the further qualification that the company shall have the right at any time to retire and cancel the whole of such preferred stock that may be outstanding upon payment to the holders thereof of interest to date at the said rate of four per cent per annum and one hundred and ten dollars (\$110) per share, as set out in a copy of a vote of the stockholders referred to in and included in the petition of the company dated January 10, 1911, as an issue of stock reasonably necessary and of the amount required for the purpose of acquiring sixty-three thousand three hundred forty-five (63,345) shares of the common stock of the Boston and Maine Railroad.

This approval does not extend to a future reduction of capital stock to which the stipulations set forth in the petition may be applicable.

FEBRUARY 15, 1911.      Attest:      CHARLES E. MANN,  
[8148]      Clerk.

*Petition of the Boston Railroad Holding Company for approval of an issue of preferred stock.*

It appearing, after notice and hearing and further investigation, that the petition is brought under the provisions of chapter 519 of the Acts of 1909 and chapter 639 of the Acts of 1910, and it further appearing that the proposed issue of preferred stock is for a lawful purpose and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to an issue by the Boston Railroad Holding Company, at the price of one hundred dollars (\$100) per share, as fixed by its stockholders, of not exceeding two thousand three hundred ninety-five (2,395) shares of four per cent (4%) cumulative preferred stock, amounting at par value to two hundred thirty-nine thousand five hundred dollars (\$239,500), having the privileges, priorities, restrictions, qualifications and limitations provided in chapter 639 of the Acts of 1910, and subject to the further qualification that the company shall have the right at any time to retire and cancel the whole of such preferred stock that may be outstanding upon payment to the holders thereof of interest to date at the said rate of four per cent per annum and one hundred and ten dollars (\$110) per share, as set out in a copy of a vote of the stockholders referred to in and included in the petition of the company dated October 27, 1911, as an issue of stock reasonably necessary and of the amount required for the purpose of providing funds for the payment of indebtedness incurred in the purchase of two thousand two hundred seventy-three (2,273) shares of the common stock of the Boston and Maine Railroad.

Attest: CHARLES E. MANN,

NOVEMBER 17, 1911. [8541]

*Clerk.*

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*Petition of the Boston Terminal Company for approval of an issue of bonds.*

It appearing, after notice and hearing and further investigation, that an issue of bonds by the petitioner, to such an amount as may be necessary and as may be approved by the Board, has been authorized by chapter 516 of the Acts of 1896; that the proposed issue of bonds is for a lawful purpose and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to an issue by the Boston Terminal Company of coupon or registered

bonds, subject to the provisions of all general and special laws applicable to such issue, to an amount not exceeding at par value five hundred thousand dollars (\$500,000), said bonds to be dated February 1, 1897, payable fifty years from date thereof and to bear interest at the rate of three and one-half per cent per annum, and secured by a mortgage of a part or all of the real estate of said company, now owned or hereafter acquired, and otherwise secured as provided in said chapter 516 of the Acts of 1896, the proceeds of said bonds to be applied toward the payment of the necessary cost of proposed extensions of and additions to the office part of its station building, for the purpose of providing additional office room.

Any excess in the proceeds of this issue of bonds which may be realized from premiums shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

And it further appearing that under an order of this Board, dated July 13, 1899, authorizing an issue of bonds by the petitioner to the amount at par value of one million five hundred thousand dollars (\$1,500,000), bonds to the amount at par value of one million dollars (\$1,000,000) only have been issued, and that it is not proposed to issue any additional bonds under that order, — it is

*Ordered*, That so much of said order of July 13, 1899, as authorized the issue of bonds amounting at par value to five hundred thousand dollars (\$500,000), not now issued, is hereby rescinded.

	Attest:	CHARLES E. MANN,
NOVEMBER 7, 1911.	[8490]	<i>Clerk.</i>

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*Petition of the Boston and Lowell Railroad Corporation for approval of an issue of additional capital stock.*

It appearing, after notice and hearing and further investigation, that the proposed issue of capital stock is for a lawful purpose and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to the issue by the Boston and Lowell Railroad Corporation of additional shares of capital stock not exceeding two thousand eight hundred (2,800) in number, amounting at par value to two hundred eighty thousand dollars (\$280,000), as an issue of stock reasonably necessary and of the amount required for the purpose of paying the cost of certain permanent additions to and improvements upon the property of the petitioner, made under and in accordance with the

provisions of the lease of its railroad and property to the Boston and Maine Railroad and described in the schedule on file in this office.

It further appearing that the directors desire to dispose of said stock by public auction in the manner provided by law, and that the amount of this issue does not exceed four per cent of the existing capital stock of the company, — it is

*Ordered*, That the two thousand eight hundred (2,800) shares of capital stock herein authorized be offered for sale by public auction in the city of Boston to the highest bidder at not less than par value to be actually paid in cash; and that the Boston Daily Advertiser, the Boston Transcript and the Boston Herald be prescribed as the daily newspapers in which notice of the time and place of such sale shall be published at least five times during the ten days immediately preceding the sale.

Any excess in the proceeds of these shares over the amount to be applied as above stated shall be held for such application to cost of permanent additions to and improvements upon the property of the petitioner as the Board shall hereafter approve.

	Attest:	CHARLES E. MANN,
FEBRUARY 27, 1911.	[8156]	<i>Clerk.</i>

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*Petition of the Boston and Maine Railroad relative to sale of stock at auction.*

It appearing that there remain unsubscribed by stockholders of the Boston and Maine Railroad entitled to take them two thousand two hundred seventy-three (2,273) shares of the common stock which the company was authorized to issue under the order of this Board dated December 14, 1910, — it is

*Ordered*, That the two thousand two hundred seventy-three (2,273) shares of common stock remaining unsubscribed as aforesaid be offered for sale by public auction in the city of Boston to the highest bidder at not less than par value to be actually paid in cash; and that the Boston Daily Advertiser, the Boston Daily Globe, the Boston Herald and the Boston Evening Transcript be prescribed as the daily newspapers in which notice of the time and place of such sale shall be published at least five times during the ten days immediately preceding the sale.

	Attest:	CHARLES E. MANN,
JUNE 22, 1911.	[8354]	<i>Clerk.</i>

*Petition of the Boston and Maine Railroad for approval of the purchase and holding of shares of the capital stock of certain railroad corporations.*

It appearing, after notice and hearing, that the Boston and Maine Railroad leases, or operates or owns a majority of the capital stock of certain railroad corporations, to wit: the Boston and Lowell Railroad Corporation, the Nashua and Lowell Railroad Corporation, The Concord and Montreal Railroad, the Northern Railroad, the Lowell and Andover Railroad Company, the Manchester and Lawrence Railroad, the Connecticut River Railroad Company, the Connecticut and Passumpsic Rivers Railroad Company, the Massachusetts Valley Railway Company and the Maine Central Railroad Company; and that it desires to purchase and hold shares of the stock of each of said railroad corporations, — it is

*Ordered*, That the approval of the Board, under the provisions of chapter 194 of the Acts of 1898, be hereby given to the purchase and holding by the Boston and Maine Railroad of the capital stock or at least a majority of the capital stock of said railroad corporations, to wit: the Boston and Lowell Railroad Corporation, the Nashua and Lowell Railroad Corporation, The Concord and Montreal Railroad, the Northern Railroad, the Lowell and Andover Railroad Company, the Manchester and Lawrence Railroad, the Connecticut River Railroad Company, the Connecticut and Passumpsic Rivers Railroad Company, the Massachusetts Valley Railway Company and the Maine Central Railroad Company.

Attest: CHARLES E. MANN,  
APRIL 17, 1911. [8192] Clerk.

*Petition of the Boston and Maine Railroad for authority to expend for other purposes a portion of unexpended and unappropriated balance of stock and bond issues heretofore approved.*

It appearing, after notice and hearing and further investigation, that there remain unexpended and unappropriated by the Boston and Maine Railroad three million four hundred forty-seven thousand forty-six dollars and seventy-one cents (\$3,447,046.71) for the purposes authorized by the Board in orders dated June 12, 1906, January 15, 1909, and December 14, 1910, approving issues of stock and bonds by the Boston and Maine Railroad, and it further appearing that the petitioner is of opinion that no further sums



should be expended at the present time for said purposes, but that it desires to expend for other lawful purposes a portion of such unexpended and unappropriated balance, — it is

*Ordered*, That the approval of the Board be hereby given to the application by the Boston and Maine Railroad of a portion of such unexpended and unappropriated balance from the issues of stock and bonds as aforesaid for the following purposes:

One million three hundred thousand dollars (\$1,300,000) to be applied toward the payment for new equipment, as shown in a schedule on file with the petition;

Eight hundred fifty thousand dollars (\$850,000) to be applied toward the payment for land at Lynn, Massachusetts, for four tracks in connection with the abolition of grade crossings.

Attest: CHARLES E. MANN,  
DECEMBER 20, 1911. [8402] Clerk.

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*Approval of agreement between the Boston and Northern Street Railway Company and the American Trust Company, as trustee, relative to the establishment of a sinking fund.*

It appearing that, under the provisions of chapter 536 of the Acts of 1910, the Boston and Northern Street Railway Company has entered into an agreement with the American Trust Company of Boston, dated December 31, 1910, whereby it has established a sinking fund for two hundred sixty-six thousand dollars (\$266,000), being the face amount of certain bonds approved by the Board November 3, 1910, — it is

*Ordered*, That the approval of the Board be hereby given to the provisions of the above agreement, a copy of which is on file in this office, and that the American Trust Company of Boston be hereby approved as trustee of said sinking fund.

Attest: CHARLES E. MANN,  
JANUARY 4, 1911. [7567] Clerk.

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*Petition of the Boston and Northern Street Railway Company for approval of an issue of bonds.*

It appearing, after notice and hearing and further investigation, that the proposed issue of bonds is for a lawful purpose and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to an

issue by the Boston and Northern Street Railway Company of coupon or registered bonds to an amount not exceeding at par value six hundred sixty-six thousand dollars (\$666,000) payable fifty (50) years from the date thereof and bearing interest at the rate of four per cent (4%) per annum, as an issue of bonds reasonably necessary and of the amount required for the purposes set out in the company's petition dated December 28, 1910, of paying certain floating indebtedness properly incurred in the construction and equipment of the railway and in the purchase of property necessary for its operation, described in the schedule on file with the petition, and of providing means for meeting the necessary cost of additions to and improvements upon the property of the petitioner described in said schedule; and that said bonds shall not, without further order of this Board, be sold at less than ninety per cent (90%) of their par value; and that said company is hereby required to pay into the sinking fund established by an agreement between said company and the American Trust Company as trustee, dated December 31, 1910, which agreement was approved by an order of this Board dated January 4, 1911, in addition to any sums heretofore required by order of this Board to be paid by said street railway company into said fund, the further sum of seven hundred and fifty dollars (\$750) per annum, by equal semi-annual payments on June 30 and December 31 in each year until the maturity of said bonds, except as this requirement may hereafter be modified by the Board, and to make the first of such semi-annual payments on June 30 next.

Attest: CHARLES E. MANN,  
MARCH 2, 1911. [8138] *Clerk.*

*Petition of the Boston and Worcester Street Railway Company  
for approval of an issue of preferred capital stock.*

It appearing, after notice and hearing and further investigation, that the proposed issue of preferred stock is for lawful purposes and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to the issue by the Boston and Worcester Street Railway Company, at the price of one hundred ten dollars (\$110) per share, as fixed by its stockholders, of not exceeding three thousand nine hundred seventy-two (3,972) shares of six per cent (6%) cumulative preferred capital stock, amounting at par value to three hundred

ninety-seven thousand two hundred dollars (\$397,200), having the preferences, voting powers and restrictions and qualifications thereof which have been fixed by a vote of all the stock of said company as set out in a copy of said vote described in and annexed to a petition of said company dated February 3, 1911, as an issue of stock reasonably necessary and of the amount required for the following purposes:

1. The proceeds of shares of preferred stock not exceeding two thousand seven hundred (2,700) in number, amounting at par value to two hundred seventy thousand dollars (\$270,000), are to be applied exclusively to the payment of money borrowed or indebtedness incurred for the purchase and cancellation of two thousand nine hundred seventy (2,970) outstanding shares of common stock of said company, amounting at par value to two hundred ninety-seven thousand dollars (\$297,000).

2. The proceeds of shares of preferred stock not exceeding three hundred thirty-six (336) in number, amounting at par value to thirty-three thousand six hundred dollars (\$33,600), are to be applied exclusively to the payment of land damages in Framingham caused by the construction of the railway of said company as described in the second paragraph of an order issued by this Board dated February 18, 1910, approving an issue of additional capital stock of said company.

3. The proceeds of shares of preferred stock not exceeding nine hundred thirty-six (936) in number, amounting at par value to ninety-three thousand six hundred dollars (\$93,600), are to be applied toward the payment of the necessary cost of permanent additions to and improvements in the property of said company as described in the third paragraph of said order of February 18, 1910.

Any excess in the proceeds of these shares over the amounts to be applied as above stated shall be held for such application to the cost of permanent additions to and improvements in the property of said company as the Board shall hereafter approve.

And it further appearing that under the order of the Board dated February 18, 1910, authorizing an issue of common stock, shares to the amount at par value of one hundred forty thousand dollars (\$140,000), described in paragraphs numbered two and three of said order, have not been issued and that it is not proposed to issue said shares, but that it is proposed to expend the proceeds of shares of preferred stock authorized by this order to the amount at par value of one hundred twenty-seven thousand

two hundred dollars (\$127,200), for the purposes therein stated, — it is

*Ordered*, That so much of said order of February 18, 1910, as authorized the issue of capital stock amounting at par value to one hundred forty thousand dollars (\$140,000), not now issued, is hereby rescinded.

Upon the purchase of the two thousand nine hundred seventy (2,970) shares of common stock of said company described in the first paragraph of this order, the company shall cancel the certificates therefor, and make due return thereof to the Board.

Attest: CHARLES E. MANN,  
FEBRUARY 21, 1911. [8167] Clerk.

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*Petition of the Concord, Maynard and Hudson Street Railway Company for approval of an issue of bonds.*

It appearing, after notice and hearing and further investigation, that the proposed issue of bonds is for a lawful purpose and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to an issue by the Concord, Maynard and Hudson Street Railway Company of coupon or registered bonds to an amount not exceeding at par value thirty thousand dollars (\$30,000), payable twenty years from date thereof and bearing interest at the rate of five per cent per annum, as an issue of bonds reasonably necessary and of the amount required for retiring bonds of the Lowell, Acton and Maynard Street Railway Company amounting to thirty thousand dollars.

Any excess in the proceeds of these bonds which may be realized from premiums shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest: CHARLES E. MANN,  
DECEMBER 2, 1911. [8547] Clerk.

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*Petition of the Fitchburg Railroad Company for approval of an issue of bonds and application of proceeds from sale of capital stock.*

It appearing, after notice and hearing and further investigation, that the proposed issue of bonds is for lawful purposes and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to an

issue by the Fitchburg Railroad Company of coupon or registered bonds to an amount not exceeding at par value one million two hundred thousand dollars (\$1,200,000), payable twenty years from date thereof and bearing interest at the rate of four and one-half per cent per annum, as an issue of bonds reasonably necessary and of the amount required for the following purposes:

1. The proceeds of bonds amounting at par value to one hundred thousand dollars (\$100,000) shall be applied exclusively to the payment and refunding of bonds of the petitioner amounting to one hundred thousand dollars (\$100,000), which became due December 1, 1911.

2. The proceeds of bonds amounting at par value to one million one hundred thousand dollars (\$1,100,000) shall be applied exclusively toward the payment of the necessary cost of permanent additions to and improvements in the railroad property of the petitioner, made by the Boston and Maine Railroad in accordance with the provisions of the lease of its railroad and described in the schedule on file with the petition.

Any excess in the proceeds of this issue of bonds which may be realized from premiums shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

And it is further

*Ordered*, That the approval of the Board be hereby given to the application of seven thousand two hundred sixty-two dollars and thirty-eight cents (\$7,262.38), realized as a part of the proceeds from the sale of four thousand shares of capital stock authorized by an order of the Board dated October 21, 1910, and being the amount received by the company in excess of that required for the purpose named in said order, toward the payment of the cost of permanent additions to and improvements in the property of the petitioner, made under the terms of the above named lease and described in the above named schedule.

Attest:                      CHARLES E. MANN,  
DECEMBER 20, 1911.      [8582]                      *Clerk.*

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*Petition of the Holyoke and Westfield Railroad Company for approval of an issue of bonds.*

It appearing, after notice and hearing and further investigation, that the proposed issue of bonds is for a lawful purpose and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to the issue by the Holyoke and Westfield Railroad Company of coupon or registered bonds to an amount not exceeding at par value two hundred thousand dollars (\$200,000), payable forty years from date thereof and bearing interest at the rate of four and one-quarter per cent ( $4\frac{1}{4}\%$ ) per annum, as an issue of bonds reasonably necessary and of the amount required for the payment and refunding of bonds of the petitioner amounting to two hundred thousand dollars (\$200,000) which become due April 1, 1911.

Any excess in the proceeds of this issue of bonds which may be realized from premiums shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest: CHARLES E. MANN,  
MARCH 14, 1911. [S163] Clerk.

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*Petition of the Holyoke and Westfield Railroad Company for approval of application of proceeds from sale of bonds.*

After consideration, — it is

*Ordered*, That the approval of the Board be hereby given to the application by the Holyoke and Westfield Railroad Company of four thousand one hundred forty dollars and two cents (\$4,140.02), realized by it as a part of the proceeds of bonds issued under the order of the Board dated March 14, 1911, to the cost of four bonds of said issue, said amount having been received by the company in excess of that required for the purpose named in said order.

Attest: CHARLES E. MANN,  
JUNE 20, 1911. [S343] Clerk.

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*Petition of the Middlesex and Boston Street Railway Company for revocation of order approving an issue of capital stock.*

It appearing, after consideration, that by an order of the Board dated July 9, 1903, the Newton Street Railway Company, which was consolidated with the Middlesex and Boston Street Railway Company under date of July 1, 1909, was authorized to issue additional capital stock amounting at par value to one hundred eighty-five thousand dollars (\$185,000), and that the stock authorized by said order has not been issued, — it is

*Ordered*, That the order of the Board, dated July 9, 1903, authorizing an issue of capital stock by the Newton Street Railway Company, amounting at par value to one hundred eighty-five thousand dollars (\$185,000), is hereby rescinded.

Attest:                    CHARLES E. MANN,  
DECEMBER 20, 1911.    [8621]                    Clerk.

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*Petition of the Middlesex and Boston Street Railway Company for approval of an issue of bonds.*

It appearing, after notice and hearing and further investigation, that the proposed issue of bonds is for lawful purposes and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to an issue by the Middlesex and Boston Street Railway Company of coupon or registered bonds to an amount not exceeding at par value one million four hundred eighty-three thousand dollars (\$1,483,000), payable twenty years from date thereof and bearing interest at the rate of five per cent per annum, as an issue of bonds reasonably necessary and of the amount required for the following purposes:

1. The proceeds of bonds amounting at par value to one million fifteen thousand dollars (\$1,015,000) shall be applied exclusively to the payment and refunding of issues of bonds assumed by the petitioner by reason of consolidation, or otherwise, amounting in the aggregate to one million fifteen thousand dollars, which issues of bonds are more particularly described as follows:

South Middlesex Street Railway Company, \$100,000, due February 1, 1915;

Westborough and Hopkinton Street Railway Company, \$40,000, due November 1, 1922;

Newton Street Railway Company, \$500,000, due July 1, 1912;

Waltham Street Railway Company, \$100,000, due December 1, 1925;

Commonwealth Avenue Street Railway Company, \$75,000, due February 1, 1916;

Newton and Boston Street Railway Company, \$200,000, due July 1, 1912.

2. The proceeds of bonds amounting at par value to four hundred sixty-eight thousand dollars (\$468,000) shall be applied exclu-

sively toward the payment of floating indebtedness properly incurred in the construction and equipment of the railway and in the purchase of property necessary for its operation.

Any excess in the proceeds of these bonds which may be realized from premiums shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest: CHARLES E. MANN,  
DECEMBER 21, 1911. [S468] Clerk.

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*Petition of the Milford and Uxbridge Street Railway Company  
for approval of an issue of preferred stock.*

It appearing, after notice and hearing and further investigation, that the proposed issue of preferred stock is for lawful purposes and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to the issue by the Milford and Uxbridge Street Railway Company, at the price of one hundred dollars (\$100) per share, as fixed by its stockholders, of not exceeding one thousand (1,000) shares of six per cent (6%) cumulative preferred capital stock, amounting at par value to one hundred thousand dollars (\$100,000), having the preferences, voting powers and restrictions and qualifications thereof which have been fixed by two-thirds votes of all the stock of said company as set out in copies of said votes referred to in and annexed to the petition of the company dated December 29, 1910, as an issue of stock reasonably necessary and of the amount required for the following purposes:

1. The proceeds of shares not exceeding eight hundred and eighty (880) in number, amounting at par value to eighty-eight thousand dollars (\$88,000), are to be applied exclusively to the payment of money borrowed or indebtedness incurred for calling and retiring the present outstanding preferred stock of the company amounting to eighty-eight thousand dollars (\$88,000).

2. The proceeds of shares not exceeding one hundred and twenty (120) in number, amounting at par value to twelve thousand dollars (\$12,000), are to be applied exclusively to the purpose of supplying the company with working capital under the provisions of chapter 485 of the Acts of 1909.

Upon the calling and retiring of the present outstanding pre-



ferred stock of the company, amounting to eighty-eight thousand dollars (\$88,000), the company shall cancel the certificates therefor and make due return thereof to the Board.

Any excess in the proceeds of these shares over the amounts to be applied as above stated shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

JANUARY 20, 1911.      Attest:      CHARLES E. MANN,  
[8129]      Clerk.

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*Petition of the Milford and Uxbridge Street Railway Company  
relative to sale of stock at auction.*

It appearing that there remain unsubscribed by stockholders of the Milford and Uxbridge Street Railway Company entitled to take them eighty-seven (87) shares of the preferred stock which the company was authorized to issue under the order of this Board dated January 20, 1911,— it is

*Ordered*, That the eighty-seven (87) shares of preferred capital stock remaining unsubscribed as aforesaid be offered for sale by public auction in the city of Boston to the highest bidder at not less than par value to be actually paid in cash; and that the Boston Daily Advertiser, the Boston Transcript and the Milford Daily Journal be prescribed as the daily newspapers in which notice of the time and place of such sale shall be published at least five times during the ten days immediately preceding the sale.

FEBRUARY 14, 1911.      Attest:      CHARLES E. MANN,  
[8177]      Clerk.

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*Petition of the Northampton Street Railway Company for ap-  
proval of an issue of additional capital stock.*

It appearing, after notice and hearing and upon further investigation, that the proposed issue of capital stock is for lawful purposes and is consistent with the public interest,— it is

*Ordered*, That the approval of the Board be hereby given to the issue by the Northampton Street Railway Company, at the price of one hundred dollars (\$100) per share, as fixed by its stockholders, of additional shares of capital stock not exceeding three

thousand (3,000) in number, amounting at par value to three hundred thousand dollars (\$300,000), as an issue of stock reasonably necessary and of the amount required for the following purposes:

1. The proceeds of shares not exceeding seven hundred and fifty (750) in number, amounting at par value to seventy-five thousand dollars (\$75,000), are to be applied exclusively to the payment of floating indebtedness properly incurred in the construction and equipment of its railway and in the purchase of property necessary for its operation, as set forth in its petition to the Board dated January 4, 1908.

2. The proceeds of shares not exceeding two thousand (2,000) in number, amounting at par value to two hundred thousand dollars (\$200,000), are to be applied exclusively to the payment of the funded debt of the company amounting to \$200,000.

3. The proceeds of shares not exceeding two hundred and fifty (250) in number, amounting at par value to twenty-five thousand dollars (\$25,000), are to be applied exclusively to the payment of floating indebtedness incurred in payment of bonds of the petitioner amounting to \$25,000, which matured June 1, 1910.

And it further appearing that under an order of this Board dated February 18, 1908, authorizing an issue of capital stock to the amount at par value of one hundred seventy-five thousand dollars (\$175,000), shares of stock to the amount at par value of one hundred thousand dollars (\$100,000) only have been issued, and that it is not proposed to issue any additional shares under that order but that it is proposed to expend the proceeds of shares authorized by this order to the amount of seventy-five thousand dollars (\$75,000) for the purpose stated in said order of February 18, 1908, — it is

*Ordered.* That so much of said order of February 18, 1908, as authorized the issue of capital stock amounting at par value to seventy-five thousand dollars (\$75,000), not now issued, is hereby rescinded.

Any excess in the proceeds of these shares over the amounts to be applied as above stated shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest:                      CHARLES E. MANN,  
JANUARY 7, 1911.      [8099]                      Clerk.

*Petition of the Old Colony Railroad Company for approval of an issue of additional capital stock.*

It appearing, after notice and hearing and further investigation, that the proposed issue of capital stock is for a lawful purpose and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to the issue by the Old Colony Railroad Company of additional shares of capital stock not exceeding eight thousand (8,000) in number, amounting at par value to eight hundred thousand dollars (\$800,000), as an issue of stock reasonably necessary and of the amount required for the purpose of paying the cost of certain permanent additions to and improvements in the property of the petitioner, made by the New York, New Haven and Hartford Railroad Company in accordance with the provisions of the lease of its railroad and described in the schedule on file with the petition.

It further appearing that the directors desire to dispose of said stock by public auction in the manner provided by law, and that the amount of this issue does not exceed four per cent of the existing capital stock of the company, — it is

*Ordered*, That the eight thousand (8,000) shares of capital stock herein authorized be offered for sale by public auction in the city of Boston to the highest bidder at not less than par value to be actually paid in cash; and that the Boston Daily Advertiser, the Boston Transcript and the Boston Daily Globe be prescribed as the daily newspapers in which notice of the time and place of such sale shall be published at least five times during the ten days immediately preceding the sale.

Any excess in the proceeds of these shares over the amount to be applied as above stated shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

	Attest:	CHARLES E. MANN,
FEBRUARY 6, 1911.	[8143]	Clerk.

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*Petition of the Old Colony Railroad Company for approval of an issue of additional capital stock.*

It appearing, after notice and hearing and further investigation, that the proposed issue of capital stock is for a lawful purpose and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to the issue by the Old Colony Railroad Company of additional shares of capital stock not exceeding five thousand (5,000) in number, amounting at par value to five hundred thousand dollars (\$500,000), as an issue of stock reasonably necessary and of the amount required for the purpose of paying the cost of certain permanent additions to and improvements in the property of the petitioner, made by the New York, New Haven and Hartford Railroad Company in accordance with the provisions of the lease of its railroad, and described in the schedule on file with the petition.

It further appearing that the directors desire to dispose of said stock by public auction in the manner provided by law, and that the amount of this issue does not exceed four per cent of the existing capital stock of the company, — it is

*Ordered*, That the five thousand (5,000) shares of capital stock herein authorized be offered for sale by public auction in the city of Boston to the highest bidder at not less than par value to be actually paid in cash; and that the Boston Daily Advertiser, the Boston Herald and the Boston News Bureau be prescribed as the daily newspapers in which notice of the time and place of such sale shall be published at least five times during the ten days immediately preceding the sale.

Any excess in the proceeds of these shares over the amount to be applied as above stated shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

Attest:                      CHARLES E. MANN,  
DECEMBER 12, 1911.      [8561]                      Clerk.

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*Approval of agreement between the Old Colony Street Railway Company and the Old Colony Trust Company, as trustee, relative to the establishment of a sinking fund.*

It appearing that, under the provisions of chapter 536 of the Acts of 1910, the Old Colony Street Railway Company has entered into an agreement with the Old Colony Trust Company of Boston, dated December 31, 1910, whereby it has established a sinking fund for two hundred fifty-one thousand dollars (\$251,000), being the face amount of certain bonds approved by the Board November 3, 1910, — it is

*Ordered*, That the approval of the Board be hereby given to the provisions of the above agreement, a copy of which is on file in this office, and that the Old Colony Trust Company of Boston be hereby approved as trustee of said sinking fund.

JANUARY 4, 1911.      Attest:      CHARLES E. MANN,  
[7568]      Clerk.

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*Petition of the Old Colony Street Railway Company for approval of an issue of additional capital stock.*

It appearing, after notice and hearing and further investigation, that the proposed issue of capital stock is for a lawful purpose and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to the issue by the Old Colony Street Railway Company, at the price of one hundred dollars (\$100) per share, as fixed by its stockholders, of additional common shares of capital stock not exceeding two thousand nine hundred twenty (2,920) in number, amounting at par value to two hundred ninety-two thousand dollars (\$292,000), as an issue of stock reasonably necessary and of the amount required for the purpose of providing means for meeting the necessary cost of additions to and improvements in the property of the petitioner, as described in the schedule on file with the petition.

Any excess in the proceeds of these shares over the amounts to be applied as above stated shall be held for such application to cost of permanent additions to and improvements in the property of the petitioner as the Board shall hereafter approve.

MARCH 30, 1911.      Attest:      CHARLES E. MANN,  
[8128]      Clerk.

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*Petition of the Southern New England Railroad Corporation for authority to issue original capital stock.*

It appearing, after notice and hearing and further investigation, that an issue of capital stock to the amount and for the purposes hereinafter named is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to the issue by the Southern New England Railroad Corporation of original shares of capital stock not exceeding ten thousand (10,000)

in number, amounting at par value to one million dollars (\$1,000,000), the proceeds of such shares to be applied only toward the payment and capitalization of the necessary cost of building and equipping its railroad and the purchase of property necessary for its operation.

Said shares are to be issued to the subscribers to the capital stock of the company, or their assigns, upon the full payment of the par value thereof in cash, and no shares are to be issued until the whole amount of the capital stock as above fixed has been actually paid in cash.

OCTOBER 16, 1911.

Attest:

CHARLES E. MANN,

[8504]

*Clerk.*

## CHARTER CERTIFICATES.

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NEW RAILROAD COMPANIES.

*Petition of The Hampden Railroad Corporation for certificate of compliance with laws preliminary to establishment.*

By order of the Board of Railroad Commissioners, I, the undersigned, Clerk of said Board, hereby certify that the requirements of law preliminary to the establishment of a railroad corporation, as set forth in chapter 463 of the Acts of 1906 and acts in addition thereto, have been complied with by the subscribers to the annexed articles of association for the formation of The Hampden Railroad Corporation.

Attest;      CHARLES E. MANN,

BOSTON, June 2, 1911.      [8266]      Clerk.

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*Petition of the Southern New England Railroad Corporation for certificate of compliance with laws preliminary to establishment.*

By order of the Board of Railroad Commissioners, I, the undersigned, Assistant Clerk of said Board, hereby certify that the requirements of law preliminary to the establishment of a railroad corporation, as set forth in chapter 463 of the Acts of 1906 and acts in addition thereto, have been complied with by the subscribers to the annexed articles of association for the formation of the Southern New England Railroad Corporation.

ALLAN BROOKS,

BOSTON, August 3, 1911.      [8412]      Assistant Clerk.

## CONSOLIDATIONS AND LEASES.

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CONSOLIDATIONS.

*Petition of the Boston and Maine Railroad for approval of terms for the purchase of the road, franchises and property of the Worcester, Nashua and Rochester Railroad Company.*

It appearing, after notice and hearing and further consideration, that the Boston and Maine Railroad and the Worcester, Nashua and Rochester Railroad Company, acting under the provisions of chapter 308 of the Acts of 1891, and of the general laws of this commonwealth, have duly agreed to the purchase by the Boston and Maine Railroad of the road, franchises and property of the Worcester, Nashua and Rochester Railroad Company, upon terms and conditions of an agreement entered into by the directors of the purchasing and selling corporations, respectively, approved by vote of the shareholders of said corporations, the purchaser upon said purchase to become subject to and held to pay all the debts and to perform all the duties and obligations of the seller, — it is

*Ordered*, That the approval of the Board be hereby given to the terms of the above purchase and sale as consistent with the public interest, the shares of the capital stock of the Worcester, Nashua and Rochester Railroad Company, upon the transfer of the road, franchises and property, to be cancelled and all certificates of such shares to be so endorsed.

Attest: ALLAN BROOKS,  
August 25, 1911. [8355] Assistant Clerk.

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*Petition of the Boston and Northern Street Railway Company and of the Old Colony Street Railway Company for approval of terms of purchase and sale.*

It appearing, by the provisions of chapter 323, Acts of 1911, that the Old Colony Street Railway Company was authorized to sell its franchise and property to the Boston and Northern Street



Railway Company, and that the latter company was authorized to purchase such franchise and property, and it appearing further, after public notice and a hearing, that the terms of such purchase and sale have been agreed to by a majority of the directors and have been approved at meetings called for the purpose by a vote of two-thirds in interest of the stockholders of each of the contracting companies, and that the facilities for travel on the railway of each of said companies will not be thereby diminished or the rates of fare increased, — it is

*Ordered*, That the approval of the Board be hereby given to the terms of the agreement, dated May 26, 1911, for such purchase and sale, a copy of which agreement is on file in the office of the Board.

And it appearing that an increase in the capital stock of the Boston and Northern Street Railway Company is reasonably necessary for the purpose of making such purchase and to enable the Boston and Northern Street Railway Company to carry into effect the agreement therefor in the manner and upon the basis in said agreement set forth, and that the amount of common and preferred capital stock provided in said agreement for the purpose of effecting an exchange of stock, share for share, of the purchasing company for stock of the selling company does not exceed in the aggregate the amounts of the common and preferred capital stock of said Old Colony Street Railway Company issued and outstanding at the date of such purchase, — it is

*Ordered*, That the approval of the Board be hereby given to an increase in the capital stock of the Boston and Northern Street Railway Company by the issue of preferred shares not exceeding seven thousand seven hundred sixty-seven (7,767) in number, amounting at par value to seven hundred seventy-six thousand seven hundred dollars (\$776,700), and by the issue of common shares not exceeding eighty thousand and forty-one (80,041) in number, amounting at par value to eight million four thousand one hundred dollars (\$8,004,100), said shares to be issued for the purpose of carrying out the terms of said agreement and in exchange for the outstanding preferred and common shares, respectively, of the Old Colony Street Railway Company, the certificates of the last named shares to be upon exchange surrendered and cancelled.

And it further appearing that said purchasing corporation has, under the provisions of said chapter 323, Acts of 1911, prescribed the preferences, voting powers and rights and the qualifications

thereof, and the restrictions and limitations of its existing preferred stock, including the amount of increase thereof hereinbefore approved and designated in said agreement as first preferred stock, — it is

*Ordered*, That the approval of the Board be hereby given to such preferences, voting powers and rights, subject to such qualifications thereof and to such restrictions and limitations, of the first preferred stock of the Boston and Northern Street Railway Company, as are prescribed in said agreement of purchase and sale, a copy of which has been filed and is to be retained in the office of this Board.

Attest:                      CHARLES E. MANN,  
JUNE 28, 1911.      [8322]                      Clerk.

*Petition of the Concord, Maynard and Hudson and the Lowell, Acton and Maynard street railway companies for approval of terms of consolidation, and for authority for an issue of additional capital stock by the Concord, Maynard and Hudson Street Railway Company.*

It appearing, after notice and hearing, that the railways of the contracting companies connect; that the Lowell, Acton and Maynard Street Railway Company is to transfer all its property and franchises to the Concord, Maynard and Hudson Street Railway Company, which is to assume all outstanding indebtedness and fulfil all obligations of the Lowell, Acton and Maynard Street Railway Company; that the purchase and sale involves no decrease in facilities for travel and no increase in rates of fare, and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to the terms of the contract of consolidation, a copy of which is on file in this office.

And it appearing that an increase in the capital stock of the Concord, Maynard and Hudson Street Railway Company is reasonably requisite for the purpose of effecting an exchange of stock, share for share, as an incident of the proposed consolidation; and that an issue of this additional stock involves no increase in the aggregate amount of the capital stock and indebtedness of the contracting companies, — it is

*Ordered*, That the approval of the Board be hereby given to an increase in the capital stock of the Concord, Maynard and Hudson Street Railway Company by the issue of shares not exceeding three

hundred fifty (350) in number, amounting at par value to thirty-five thousand dollars (\$35,000), the said shares to be issued for the purpose of carrying out the terms of said contract and in exchange, share for share, for the outstanding shares of the Lowell, Acton and Maynard Street Railway Company, the certificates of the last named shares to be upon exchange surrendered and cancelled.

Attest: CHARLES E. MANN,  
JUNE 27, 1911. [8334] \_\_\_\_\_ Clerk.

*Petition of the Old Colony Railroad Company for approval of terms of purchase of the Plymouth and Middleborough railroad.*

It appearing, after notice and hearing, that the Old Colony Railroad Company and the Plymouth and Middleborough Railroad Company, acting under the provisions of chapter 451 of the Acts of 1893, have duly agreed to the terms of the purchase by the Old Colony Railroad Company of the franchise and property of the Plymouth and Middleborough Railroad Company, — it is

*Ordered*, That the approval of the Board, under the provisions of section 67, part I, of chapter 463 of the Acts of 1906, be hereby given to the terms of the above purchase and sale as consistent with the public interest.

Attest: CHARLES E. MANN,  
DECEMBER 27, 1911. [8587] \_\_\_\_\_ Clerk.

*Petition of the Worcester Consolidated and the Marlborough and Westborough street railway companies for approval of terms of consolidation, and for authority for an issue of additional capital stock by the Worcester Consolidated Street Railway Company.*

It appearing, after notice and hearing, that the railways of the contracting companies connect; that the Marlborough and Westborough Street Railway Company is to transfer all its property and franchises to the Worcester Consolidated Street Railway Company, which is to assume all outstanding indebtedness and fulfil all obligations of the Marlborough and Westborough Street Railway Company; that the purchase and sale involves no decrease in facilities for travel and no increase in rates of fare, and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to the terms of the contract of consolidation, a copy of which is on file in this office.

And it appearing that an increase in the capital stock of the Worcester Consolidated Street Railway Company is reasonably requisite for the purpose of effecting an exchange of stock, share for share, as an incident of the proposed consolidation; and that an issue of this additional stock involves no increase in the aggregate amount of the capital stock and indebtedness of the contracting companies, — it is

*Ordered*, That the approval of the Board be hereby given to an increase in the capital stock of the Worcester Consolidated Street Railway Company by the issue of shares not exceeding one thousand six hundred (1,600) in number, amounting at par value to one hundred sixty thousand dollars (\$160,000), the said shares to be issued for the purpose of carrying out the terms of said contract and in exchange, share for share, for the outstanding shares of the Marlborough and Westborough Street Railway Company, the certificates of the last named shares to be upon exchange surrendered and cancelled.

Attest: CHARLES E. MANN,

MAY 3, 1911. [8201]

Clerk.

*Petition of the Worcester Consolidated and the Worcester and Blackstone Valley street railway companies for approval of terms of consolidation, and for authority for an issue of additional capital stock by the Worcester Consolidated Street Railway Company.*

It appearing, after notice and hearing, that the railways of the contracting companies connect; that the Worcester and Blackstone Valley Street Railway Company is to transfer all its property and franchises to the Worcester Consolidated Street Railway Company, which is to assume all outstanding indebtedness and fulfil all obligations of the Worcester and Blackstone Valley Street Railway Company; that the purchase and sale involves no decrease in facilities for travel and no increase in rates of fare, and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to the terms of the contract of consolidation, a copy of which is on file in this office.

And it appearing that an increase in the capital stock of the

Worcester Consolidated Street Railway Company is reasonably requisite for the purpose of effecting an exchange of stock, share for share, as an incident of the proposed consolidation; and that an issue of this additional stock involves no increase in the aggregate amount of the capital stock and indebtedness of the contracting companies, — it is

*Ordered*, That the approval of the Board be hereby given to an increase in the capital stock of the Worcester Consolidated Street Railway Company by the issue of shares not exceeding three thousand six hundred twenty (3,620) in number, amounting at par value to three hundred sixty-two thousand dollars (\$362,000), the said shares to be issued for the purpose of carrying out the terms of said contract and in exchange, share for share, for the outstanding shares of the Worcester and Blackstone Valley Street Railway Company, the certificates of the last named shares to be upon exchange surrendered and cancelled.

Attest: CHARLES E. MANN,

MAY 3, 1911.

[8202]

Clerk.

*Petition of the Worcester Consolidated and the Worcester and Holden street railway companies for approval of terms of consolidation, and for authority for an issue of additional capital stock by the Worcester Consolidated Street Railway Company.*

It appearing, after notice and hearing, that the railways of the contracting companies connect; that the Worcester and Holden Street Railway Company is to transfer all its property and franchises to the Worcester Consolidated Street Railway Company, which is to assume all outstanding indebtedness and fulfil all obligations of the Worcester and Holden Street Railway Company; that the purchase and sale involves no decrease in facilities for travel and no increase in rates of fare, and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to the terms of the contract of consolidation, a copy of which is on file in this office.

And it appearing that an increase in the capital stock of the Worcester Consolidated Street Railway Company is reasonably requisite for the purpose of effecting an exchange of stock, share for share, as an incident of the proposed consolidation; and that an issue of this additional stock involves no increase in the aggre-

gate amount of the capital stock and indebtedness of the contracting companies, — it is

*Ordered*, That the approval of the Board be hereby given to an increase in the capital stock of the Worcester Consolidated Street Railway Company by the issue of shares not exceeding one thousand five hundred (1,500) in number, amounting at par value to one hundred fifty thousand dollars (\$150,000), the said shares to be issued for the purpose of carrying out the terms of said contract and in exchange, share for share, for the outstanding shares of the Worcester and Holden Street Railway Company, the certificates of the last named shares to be upon exchange surrendered and cancelled.

Attest: CHARLES E. MANN,

MAY 3, 1911.

[8203]

Clerk.

*Petition of the Worcester Consolidated and the Worcester and Southbridge street railway companies for approval of terms of consolidation, and for authority for an issue of additional capital stock by the Worcester Consolidated Street Railway Company.*

It appearing, after notice and hearing, that the railways of the contracting companies connect; that the Worcester and Southbridge Street Railway Company is to transfer all its property and franchises to the Worcester Consolidated Street Railway Company, which is to assume all outstanding indebtedness and fulfil all obligations of the Worcester and Southbridge Street Railway Company; that the purchase and sale involves no decrease in facilities for travel and no increase in rates of fare, and is consistent with the public interest, — it is

*Ordered*, That the approval of the Board be hereby given to the terms of the contract of consolidation, a copy of which is on file in this office.

And it appearing that an increase in the capital stock of the Worcester Consolidated Street Railway Company is reasonably requisite for the purpose of effecting an exchange of stock, share for share, as an incident of the proposed consolidation; and that an issue of this additional stock involves no increase in the aggregate amount of the capital stock and indebtedness of the contracting companies, — it is

*Ordered*, That the approval of the Board be hereby given to an increase in the capital stock of the Worcester Consolidated Street

Railway Company by the issue of shares not exceeding eight thousand nine hundred (8,900) in number, amounting at par value to eight hundred ninety thousand dollars (\$890,000), the said shares to be issued for the purpose of carrying out the terms of said contract and in exchange, share for share, for the outstanding shares of the Worcester and Southbridge Street Railway Company, the certificates of the last named shares to be upon exchange surrendered and cancelled.

Attest: CHARLES E. MANN,  
MAY 3, 1911. [8204] \_\_\_\_\_ Clerk.

LEASES.

*Petition of the Chatham Railroad Company for approval of terms of lease to the New York, New Haven and Hartford Railroad Company.*

It appearing, after notice and hearing, that the railroads of these companies connect, within the meaning of section 209 of part II of chapter 463 of the Acts of 1906, and that the terms of the proposed lease of the railroad, franchise and property of the Chatham Railroad Company to the New York, New Haven and Hartford Railroad Company are lawful and consistent with the public interest, — it is

*Ordered,* That the terms of the lease above named, a copy of which is on file in this office, be hereby approved.

Attest: CHARLES E. MANN,  
MARCH 9, 1911. [8171] \_\_\_\_\_ Clerk.

*Petition of the Martha's Vineyard and the Oak Bluffs street railway companies for approval of terms of a lease.*

It appearing, after notice and hearing, that the railways of these companies connect; that a lease of the franchises, property and railway of the Martha's Vineyard Street Railway Company to the Oak Bluffs Street Railway Company has been authorized by the directors and stockholders of each company; and that the terms of this lease are lawful and consistent with the public interest, — it is

*Ordered,* That the terms of the lease above named, a copy of which is on file in this office, be hereby approved.

Attest: CHARLES E. MANN,  
MAY 3, 1911. [8246] \_\_\_\_\_ Clerk.

## CROSSINGS, RAILROAD OR RAILWAY.

## RAILROAD AND HIGHWAY CROSSINGS.

*Petition of the county commissioners of Middlesex county for consent to the crossing of railroad tracks by a public way at grade in the town of Acton.*

It appearing, after notice and hearing and full consideration, that the county commissioners of Middlesex county have adjudged that public necessity and convenience require that a highway should be laid out across railroad tracks used for the transportation of freight from the main line of the Fitchburg railroad at West Acton station to the premises of Oliver W. Mead and others at a level therewith, — it is

*Ordered*, That the consent of the Board be given to said crossings at grade, as shown upon a plan on file with the petition.

Attest: CHARLES E. MANN,  
AUGUST 2, 1911. [8407] Clerk.

*Petition of the Fore River Shipbuilding Company for extension of time for maintaining private freight tracks across highways at grade in Quincy and Braintree.*

Under an order of the Board issued May 6, 1903, the Fore River Ship and Engine Company, predecessor of the petitioner, was authorized to construct and maintain a private freight track across certain public highways in Quincy and Braintree, for a period expiring September 1, 1905. This authority was on July 6, 1905, on application of the petitioner, extended for two years to September 1, 1907, on August 21, 1907, to September 1, 1908, on November 28, 1908, to December 1, 1909, and on December 2, 1909, to June 1, 1911, and the petitioner now asks for a further extension.

After notice and hearing, — it is

*Ordered*, That the period within which these crossings may be maintained be extended to December 1, 1912.

Attest: CHARLES E. MANN,  
JUNE 28, 1911. [8356] Clerk.



## RAILROAD AND RAILWAY CROSSINGS.

*Petition of the Boston and Maine Railroad for consent to the construction of a second track across the Boston and Northern street railway at grade at Washington street in Gloucester.*

After notice and hearing and further consideration, it appearing that the Boston and Maine railroad crosses at grade the highway known as Washington street in the city of Gloucester, said crossing being protected by gates which are closed whenever a train passes over said crossing, — it is

*Ordered*, That the consent of the Board be hereby given to the construction by the Boston and Maine Railroad of a second track at grade across Washington street in the city of Gloucester, at the same level with the tracks of the Boston and Northern street railway located in said street, as shown upon a plan on file with the petition, the crossing of said second track over the tracks of the street railway to be constructed and maintained by the petitioner at its own expense and in a manner satisfactory to the Boston and Northern Street Railway Company, or, if the parties do not agree, in such manner as the Board shall prescribe.

This order is issued without prejudice to proceedings now in progress for the elimination of this grade crossing.

Attest:                    CHARLES E. MANN,  
JUNE 28, 1911.        [S339]                    Clerk.

*Petition of the Boston and Northern Street Railway Company for consent to the construction of additional track in Union street in Lawrence across the Boston and Maine railroad at grade.*

It appearing, after notice and hearing and further consideration, that the petitioner has been granted a location for a second track in Union street in Lawrence, where an existing street railway track already crosses the tracks of the Boston and Maine railroad, — it is

*Ordered*, That the consent of the Board be hereby given to the construction and maintenance by the petitioner of an additional track across the tracks of the Boston and Maine railroad at the same level therewith in Union street in Lawrence, as shown upon a plan on file in this office, under the following conditions and subject to the following regulations:

1. The crossings shall be constructed and maintained by and at the expense of the street railway company in a manner satisfactory to the railroad company, or, if the parties do not agree, in such manner as shall be prescribed by the Board.

2. Every street car, on approaching each crossing, shall be stopped within one hundred feet therefrom and the conductor of such car shall proceed to a point upon each crossing from which he can secure the best view of approaching trains, at which place he shall remain until his car shall have crossed under his direction.

3. This order is subject to change or revocation at any time.

Attest:                    CHARLES E. MANN,

JUNE 28, 1911.

[S350]

Clerk.

*Petition of the Springfield Street Railway Company for consent to a crossing of its railway and the private railroad of the Ludlow Manufacturing Associates in Ludlow.*

It appearing, after notice and hearing, that the petitioner has been granted a location for its railway in Winsor street in the town of Ludlow, and in connection therewith desires to construct and maintain its railway across the private railroad of the Ludlow Manufacturing Associates; and that under existing conditions public convenience and necessity reasonably require a grade crossing at this place,— it is

*Ordered*, That the consent of the Board be hereby given to the construction and maintenance by the Springfield Street Railway Company of its railway across the private railroad of the Ludlow Manufacturing Associates at a level therewith in Winsor street in the town of Ludlow, as shown upon a plan on file in this office, upon the following conditions and subject to the following regulations:

1. The crossing shall be constructed and maintained by and at the expense of the street railway company, in a manner satisfactory to the Ludlow Manufacturing Associates, or, if the parties do not agree, in such manner as shall be prescribed by this Board.

2. Every street car, on approaching the railroad, shall be stopped within one hundred feet therefrom, and the conductor of such car shall proceed to a point upon the railroad premises from which he can secure the best view of approaching trains, at which place he shall remain until his car shall have crossed under his direction.

3. This order is subject to change or revocation at any time, and

the right to maintain the railway across the railroad track shall in any event cease on the first day of June, 1912.

Attest: CHARLES E. MANN,  
APRIL 1, 1911. [S185] *Clerk.*

# EXTENSION OF THE TIME FOR MAINTAINING RAILROAD AND RAILWAY CROSSINGS.

*Petition of the Berkshire Street Railway Company for authority to maintain and use an existing grade crossing, heretofore authorized, of railroad and railway in Pittsfield.*

After notice and hearing, — it is

*Ordered,* That the petitioner be authorized to maintain and use a crossing of its railway and the tracks of the Boston and Albany railroad at the same level at Dalton road in Pittsfield, from the date of this order until June 1, 1912, subject to all provisions of law and to the conditions embodied in the order of the Board dated May 22, 1902, and to the further condition that any substantial increase in the use of the crossing by the railway or railroad shall be seasonably reported by the petitioner to this Board.

Attest: CHARLES E. MANN,  
MAY 22, 1911. [8265] *Clerk.*

Under the provisions of sections 21 and 22 of part I, chapter 463, Acts of 1906, the Board has, during the period covered by this report issued additional orders extending the time for maintenance of crossings of railroads and railways. Appended is a list of these orders:

## *Blue Hill Street Railway.*

Canton, June 5, 1911 — with New York, New Haven and Hartford railroad at Washington street, to June 1, 1912. Original order issued November 5, 1900. [8282]

## *Boston and Northern Street Railway.*

Newbury, May 22, 1911 — with Boston and Maine railroad at State street, to June 1, 1912. Original order issued April 4, 1900, to Georgetown, Rowley and Ipswich Street Railway Company. [8269]

Wilmington, May 22, 1911 — with Boston and Maine railroad at Main street, to June 1, 1912. Original order issued May 24, 1901, to Lynn and Boston Railroad Company. [8269]

*Boston and Worcester Street Railway.*

Framingham, June 28, 1911 — with New York, New Haven and Hartford railroad at Worcester street, to December 1, 1912. Original order issued February 28, 1899, to Framingham, Southborough and Marlborough Street Railway Company. [8368]

*Concord, Maynard and Hudson Street Railway.*

Maynard, July 1, 1911 — with Boston and Maine railroad at Main street, to December 1, 1912. Original order issued July 23, 1901. [8363]

*Holyoke Street Railway.*

Amherst, July 13, 1911 — with New London Northern railroad at Main street, to December 1, 1912. Original order issued July 22, 1897, to Amherst and Sunderland Street Railway Company. [8387]

Holyoke, July 13, 1911 — with Boston and Maine railroad at the intersection of Race and Cabot streets, to December 1, 1912. Original order issued June 25, 1897. [8386]

*Medfield and Medway Street Railway.*

Medfield, June 10, 1911 — with New York, New Haven and Hartford railroad at Main street, to June 1, 1912. Original order issued February 28, 1900. [8299]

*Middlesex and Boston Street Railway.*

Hopkinton, June 14, 1911 — with New York, New Haven and Hartford railroad at Main street, to June 1, 1912. Original order issued November 22, 1901, to Westborough and Hopkinton Street Railway Company, and amended July 5, 1902. [8309]

*Old Colony Street Railway.*

East Bridgewater, May 22, 1911 — with New York, New Haven and Hartford railroad at Central street, to June 1, 1912. Original order issued November 1, 1897, to Brockton and East Bridgewater Street Railway Company. [8270]

Taunton, May 22, 1911 — with New York, New Haven and Hartford railroad at Dean street, to June 1, 1912. Original order issued March 19, 1900, to Brockton Street Railway Company, and amended January 17, 1908. [8270]

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PRIVATE RAILROADS.

*Petition of the Degnon Cape Cod Canal Construction Company for consent to the construction and maintenance of railroad for private use across a highway in Bourne.*

It appearing that the selectmen of the town of Bourne have consented to the construction of the proposed railroad across the highway; that the county commissioners of Barnstable county have consented that the railroad cross the highway at a level therewith, and that the same is consistent with the public interests, — it is

*Ordered*, That the consent of the Board be hereby given to the construction and maintenance by the petitioner of a railroad, for temporary use, to be operated by steam power upon and across the highway known as Collins farm road in the town of Bourne, as shown upon a plan on file with the petition.

This consent is given upon the condition that a flagman shall display a flag by day and a lantern by night whenever an engine, car or train is approaching and while it is passing over said crossing, and that no engine, car or train shall cross at a greater speed than four miles an hour.

Attest: CHARLES E. MANN,  
JULY 18, 1911. [8401] Clerk.

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*Petition of the Lombard Governor Company for consent to the construction and maintenance of a railroad for private use in the transportation of freight across a highway in Ashland.*

It appearing that the selectmen of the town of Ashland have consented to the construction and maintenance of the proposed railroad across the highway; that the county commissioners of Middlesex county have adjudged that public necessity requires that the railroad cross the highway at a level therewith, and that the same is consistent with the public interests, — it is

*Ordered*, That the consent of the Board be hereby given to the construction and maintenance by the petitioner of a railroad, for

private use in the transportation of freight, to be operated by steam power upon and across the highway known as Front street in Ashland, as shown upon a plan on file in this office.

This consent is given upon the condition that a flagman shall display a flag by day and a lantern by night whenever an engine, car or train is approaching and while it is passing over said crossing, and that no engine, car or train shall cross at a greater speed than four miles an hour.

Attest:                      CHARLES E. MANN,  
JUNE 14, 1911.      [8336]                      *Clerk.*

By similar orders, the Board has during the past year consented to the construction of railroads for private use in the transportation of freight across highways, as follows:—

Chelsea, June 30, 1911 — Eastern Storage Company, across Spruce street. [8255]

Chelsea, August 16, 1911 — J. Lipsitz, across Carter street. [8410]

Chelsea, April 17, 1911 — Magee Furnace Company and Samuel Cabot, Incorporated, across the West End street railway in Eastern avenue. [8219]

Everett, June 22, 1911 — New England Structural Company, across Second street. [8335]

Lowell, June 28, 1911 — Appleton Company, across Jackson street. [8358]

Lowell, July 1, 1911 — Middlesex Company, across Warren street. [8365]

Norwood, September 26, 1911 — New England Cement Stone Company, across Pleasant street. [8443]

Pittsfield, February 4, 1911 — General Electric Company, across East street at Woodlawn avenue, crossing the Berkshire street railway. [7602]

Pittsfield, February 21, 1911 — General Electric Company, across East street west of Woodlawn avenue, crossing the Berkshire street railway. [8180]

Pittsfield, April 6, 1911 — General Electric Company, across East street west of Woodlawn avenue and at Woodlawn avenue, crossing the Berkshire street railway. [8180, 8188]

Sheffield, May 9, 1911 — Western Massachusetts Contracting Company, across certain highways, until September 15, 1911. [8267]

Woburn, July 19, 1911 — John R. Carter, across Prospect street. [8385]

Woburn, June 28, 1911 — Sherman-Moore Company, across Boutwell lane. [8367]

Worcester, August 2, 1911 — American Steel and Wire Company, across Prescott street. [8424]

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#### SAFEGUARDS AT CROSSINGS.

*Petition of the mayor and city solicitor of Beverly for the installation of warning bells at the Congress street crossing of the Boston and Maine railroad in that city.*

It appeared at the hearing that Congress street in Beverly crosses at grade the main line of the Eastern division of the Boston and Maine railroad, that the crossing is used to a considerable extent by the travelling public, and that a large number of trains pass in either direction. The crossing is now protected by gates and a gateman, but westbound trains are relieved from giving the statutory whistling signal at the crossing by order of the Board. As additional safeguards the Board, after a public hearing and a view and further consideration, recommends that as a warning of approaching trains to persons using the highway, electric bells be installed and maintained at the crossing known as Congress street in the city of Beverly, and rescinds so much of the order dated October 2, 1908, as prohibits the sounding of the locomotive whistle for trains approaching this crossing.

By the Board,

CHARLES E. MANN,

MARCH 14, 1911. [8170]

Clerk.

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*Petition of the selectmen of Boxborough for the establishment of gates at the crossing at the Boxborough station on the Boston and Maine railroad.*

Boxborough is a flag station on the Fitchburg division of the Boston and Maine railroad. At the present time the grade crossing at the station is unprotected. After a hearing, a view by the Board's inspector and a count of the travel over the crossing, we are of opinion that some protection should be provided, and therefore recommend that as a warning of approaching trains to persons

using the highway electric bells be installed and maintained at the crossing. In addition to the installation of safeguards at the crossing it would be very advantageous if the Boston and Maine Railroad should make arrangements, if possible, to improve the view by removing certain trees on abutting property.

For the Board,

ALLAN BROOKS,

AUGUST 3, 1911. [8390]

Assistant Clerk.

*Petition of the selectmen of Cohasset relative to crossing protection on the New York, New Haven and Hartford railroad in that town.*

The New York, New Haven and Hartford railroad crosses the following ways at grade in the town of Cohasset: Smith's place or Smith street, Pleasant street, James lane, Spring street (crossings No. 1 and No. 2) and Beechwood street. Beechwood street, Spring street crossing No. 2 and Pleasant street are now protected by flagmen, and Spring street crossing No. 1 by an electric bell. Smith place and James lane are unprotected crossings.

After public hearing and a view and further consideration, — it is

*Ordered*, That the New York, New Haven and Hartford Railroad Company cause flagmen to be maintained at all the above named crossings in the town of Cohasset during the hours when passenger train service is in operation throughout the year, except at Spring street crossing No. 1, which is protected by a bell; it being understood that whenever any flagman has other employment in the service of the company his first duty shall be to properly flag the crossing.

JANUARY 12, 1911. Attest: [8024]

CHARLES E. MANN,

Clerk.

*Petition of the selectmen of Concord relative to protection at grade crossings of the New York, New Haven and Hartford railroad in that town.*

After public hearing and a view, and further consideration, — it is

*Ordered*, That the New York, New Haven and Hartford Railroad Company cause the northerly crossing of the old Marlborough



road and its railroad in the town of Concord, to be protected by a flagman, beginning with the passing of the first passenger train in the morning and ending with the passing of the last passenger train in the afternoon or evening; and that the rate of speed of all trains passing over said crossing during the hours when the same is unprotected shall not exceed twelve miles an hour.

It is further

*Ordered*, That the New York, New Haven and Hartford Railroad Company install an electric warning bell or bells at the next crossing southerly of the old Marlborough road and its railroad in the town of Concord.

Attest: CHARLES E. MANN,  
FEBRUARY 16, 1911. [S151] Clerk.

#### ABOLITION OF GRADE CROSSINGS.

*Report of the Board sitting as a special commission on the abolition of grade crossings of the Boston, Revere Beach and Lynn railroad in Boston.*

#### COMMONWEALTH OF MASSACHUSETTS.

SUFFOLK, SS.

SUPERIOR COURT  
IN EQUITY.

MAYOR AND ALDERMEN OF THE CITY OF BOSTON, PETITIONERS FOR THE ABOLITION OF GRADE CROSSINGS AT SARATOGA STREET, MAVERICK STREET, MARGINAL STREET, AND A CERTAIN PRIVATE WAY KNOWN AS SHORT STREET, EAST BOSTON, VS. BOSTON, REVERE BEACH AND LYNN RAILROAD COMPANY.

#### *Decision and Report of Commissioners.*

The subscribers, constituting the commission appointed in this cause, and which said commission consists of the members of the board of railroad commissioners appointed under the provisions of section 29, part I, chapter 463 of the Acts of 1906, report as follows:

We gave notice to the parties and also public notice by newspapers published in Boston of a public hearing upon the subject matter of this petition.

At the time and place notified the City of Boston appeared by its assistant corporation counsel; the Boston, Revere Beach and Lynn Railroad Company appeared by counsel; the Commonwealth of Massachusetts appeared by the assistant attorney-general; and persons, not parties, but claiming to be interested in the subject matter of the petition, appeared and were heard.

And now, having heard the parties and all persons desiring to be heard, and having viewed said crossings and heard and considered all the evidence, plans, suggestions and arguments of counsel and others claiming to be interested,

*We decide and Report as follows:*

We decide that the security and convenience of the public require alteration should be so made in the crossings at Saratoga street as to avoid a crossing at grade, and that the crossing at Short street, a private way, should be discontinued, building in substitution therefor a new way from the junction of Cowper street and said Short street to Byron street.

All the parties have agreed that we shall not pass upon the question of altering the crossings at Marginal and Maverick streets and therefore as to them we make no decision or report.

*Manner and Limits of Alterations.*

We prescribe the manner and limits within which such alterations, discontinuances and substitution shall be made as follows, viz.:

1. *Changes in Railroad.*—The grade of the Boston, Revere Beach and Lynn railroad is hereby changed and established as follows, viz.:

Beginning at a point in the present grade of the tracks and at station 330 of the located main line of the railroad, at grade 14.40, thence westerly by a level grade to station 343+60; thence westerly by an ascending grade of three hundred thirteen thousandths (0.313) feet per one hundred (100) feet to station 351+58 to grade 16.90.

The main tracks of the said Boston, Revere Beach and Lynn railroad shall be lowered to the new grade hereby established, which is the top of the rail.

The grade of the Winthrop branch of the said Boston, Revere Beach and Lynn railroad, at the junction of the tracks of the said branch with the tracks of the main line of the railroad, and the side tracks at the said junction, shall be changed to conform to the new grade of the main line tracks.

From station 330 of the located main line of the Boston, Revere Beach and Lynn railroad to station 351+58 the roadbed shall be constructed of sufficient width for the existing tracks.

Two (2) feet in depth from the grade of the base of the rail shall be good gravel ballast.

*Orient Heights Station.*—The Orient Heights depot shall remain at its present grade and shall be moved northwesterly towards Bennington street, substantially as shown on sheet No. 1 of the accompanying plans. Stairs of masonry and inclines shall be constructed leading from Bennington street to the depot level and from thence to the track level.

The walk surrounding the depot building and connecting it with the stairs and Bennington street shall be of tar concrete.

2. *Changes in Streets.* — The following alterations are to be made in Saratoga street and the several streets connecting therewith.

*Saratoga Street.* — The grade of Saratoga street shall be raised so that the street shall pass over the Boston, Revere Beach and Lynn railroad. The new grade of the street over the tracks and at the abutments of the bridge hereinafter described is to be at elevation thirty-three and nine-tenths (33.9) feet above Boston city base. The grade is to descend northwesterly from the northerly abutment of the bridge and southeasterly from the southerly abutment of the bridge at a rate not exceeding four (4) feet per hundred (100) feet to the present grade of said street with proper curves at changes of grade.

The street shall be carried on a bridge of steel designed in accordance with the "Specifications for Bridges carrying Electric Railways adopted by the Massachusetts Railroad Commission, revised August 1908", for the live loads therein specified for city bridges carrying street railways.

The bridge shall be supported on abutments of concrete masonry, the distance between the faces of the abutments measured at right angles to the railroad tracks at the rail grade to be sixty-one (61) feet.

The bridge shall have a clear head room from the top of the rails to the underside of the bridge of sixteen (16) feet.

The bridge shall have a solid floor of brick or concrete arches and paving brick wearing surface.

The roadway and sidewalks on the bridge shall be of the same width as on the adjacent filled portions of the street, less the necessary allowance to be made for trusses or girders, and there shall be suitable iron fences not less than three and one-half ( $3\frac{1}{2}$ ) feet high placed on each side of the bridge.

Provision shall be made in the construction of the bridge for carrying beneath the floor of such water pipes, gas pipes and electric conduits as may be required.

A retaining wall of solid concrete or rubble masonry is to be built on the northeasterly side of Saratoga street and on the southerly side of Bennington street adjoining the grounds of the railroad station. A suitable iron fence not less than three and one-half ( $3\frac{1}{2}$ ) feet high shall be placed on said retaining wall.

*Bennington Street.* — The grade of Bennington street at its junction with Saratoga street shall be raised to conform to the new grade of said Saratoga street and is to descend westerly from said new grade at a rate not exceeding four (4) feet per hundred (100) feet to the present grade of said street, and is to descend easterly on the southerly side of said Bennington street at a rate not exceeding five and nine-tenths (5.9) feet per hundred (100) feet, and on the northerly side of said street at a rate not exceeding four (4) feet per hundred (100) feet,

to the present grade of said street, with proper curves at changes of grade.

*Breed Street, Antrim Street, Butler Avenue, Bayswater Street and Thurston Street.* — The grade of the above named streets shall be raised to conform to the new grade of intersecting streets. The rate of grades on these streets shall not exceed five (5) feet per hundred (100) feet with proper curves at changes of grade.

*Short Street.* — The portion of the private way known as Short street between the southeasterly line of Cowper street and the southeasterly line of the location of the railroad is hereby discontinued, and a new way in extension of Cowper street is hereby laid out in substitution therefor, bounded and described as follows, viz.:

Beginning at a point on the southerly line of Cowper street at the intersection of said line with the easterly line of the private way known as Short street, thence running northerly fifty (50) feet to the northerly line of said Cowper street, thence running northeasterly two hundred thirty-two and fifty-nine one-hundredths (232.59) feet to the northerly line of land owned by the said railroad company, thence by said line to the westerly line of Byron street ninety (90) feet, thence southerly by said line of Byron street sixty (60) feet, thence running westerly seventy-nine and thirty-four one-hundredths (79.34) feet to a point fifty (50) feet southerly at a right angle from the before mentioned northerly line of the said railroad land, thence southwesterly by a straight line parallel to and fifty (50) feet distant from, at a right angle, the second described line two hundred thirty-two and fifty-nine one-hundredths (232.59) feet to the southerly line of the said Cowper street, thence westerly by said southerly line of Cowper street eleven and thirty one-hundredths (11.30) feet to the point of beginning.

The grade of said new way is hereby established as follows: viz.: — Beginning at the established grade of the said Cowper street at the point of beginning of said new way, the grade is to ascend at a uniform rate to meet the established grade of said Byron street, with proper curves at changes of grade.

#### *Taking of Land for Street Purposes.*

For laying out the new way in substitution for the private way known as Short street, it is necessary to take certain parcels of land for highway purposes, which parcels of land are hereby taken for such purposes, and are bounded and described as follows, viz.:

*Parcel No. 1.* — A certain parcel of land supposed to belong to Leander J. Costa and bounded and described as follows, viz.:

Beginning at the intersection of the northerly line of Cowper street with the easterly line of the private way known as Short street produced, thence running northeasterly one hundred ten and seventy-six one-hundredths (110.76) feet to line of land belonging to the Boston,

Revere Beach and Lynn Railroad Company, thence southerly by said line of land forty-seven and sixty-two one-hundredths (47.62) feet to the northerly line of said Cowper street, thence by said line of Cowper street one hundred (100) feet to the point of beginning, containing about two thousand three hundred eighty-one (2,381) square feet.

*Parcel No. 2.*—A certain parcel of land supposed to belong to the Boston, Revere Beach and Lynn Railroad Company, bounded and described as follows, viz.:

Beginning at the intersection of the division line between the land supposed to belong to Leander J. Costa and the land of said railroad, with the northerly line of Cowper street, thence northerly by said division line forty-seven and sixty-two one-hundredths (47.62) feet, thence northeasterly one hundred twenty-one and eighty-three one-hundredths (121.83) feet to the northerly line of the land of said railroad, thence easterly by said northerly line ninety (90) feet to the westerly line of Byron street, thence southerly by said westerly line sixty (60) feet, thence northwesterly seventy-nine and thirty-four one-hundredths (79.34) feet to a point which is fifty (50) feet at a right angle southerly from the aforesaid northerly line of the land of the railroad company, thence southwesterly by a line fifty (50) feet, at a right angle from and parallel to the second before described line, one hundred sixteen and thirty one-hundredths (116.30) feet to the northerly line of said Cowper street, thence by said line of Cowper street sixteen and thirty one-hundredths (16.30) feet to the point of beginning, containing about ten thousand nine hundred fifty-two (10,952) square feet.

*Parcel No. 3.*—A certain parcel of land belonging to a person or persons unknown, bounded and described as follows, viz.:

Beginning at the intersection of the southerly line of Cowper street with the easterly line of the private way known as Short street, thence running northerly fifty (50) feet to the northerly line of said Cowper street, thence running easterly by said northerly line one hundred sixteen and thirty one-hundredths (116.30) feet, thence running southwesterly one hundred sixteen and thirty one-hundredths (116.30) feet, to the southerly line of said Cowper street, thence running westerly by said southerly line eleven and thirty one-hundredths (11.30) feet to the point of beginning, containing about three thousand one hundred ninety (3,190) square feet.

#### *Taking of Land for Slopes.*

The right for highway purposes is taken to use, for retaining walls or slopes where necessary for such purpose, the following described lots of land abutting on each of the streets and private ways laid out or the grade of which is to be raised, to such width from the line of each street or way as will allow slopes of two feet horizontal to one foot vertical, reserving to the owner of each lot the full ownership thereof,

with the right to use the land, walls and slopes in any manner and for any purpose, or to remove the walls or slopes, provided that in case of such use or removal the filling supported by the wall or slope shall be otherwise maintained. Such land is substantially shown on the accompanying plans by spaces inclosed by broken lines, and is bounded and described as follows, viz.:

*Slope Parcels.*

*Parcel No. 1.* — Beginning at a point on the southerly line of Saratoga street, said point being at the end of the curved street line connecting the southerly line of Saratoga street with the northwesterly line of Bennington street, thence southerly by said curved street line about twenty-four (24) feet to the northwesterly line of Bennington street; thence southwesterly by said northwesterly line about one hundred ninety-seven (197) feet; thence northeasterly about eighty-four (84) feet to a point distant six (6) feet northerly at a right angle from said northwesterly line of Bennington street; thence still northeasterly about eighty-nine (89) feet to a point distant twenty (20) feet from the northwesterly line of Bennington street and eighteen (18) feet from the southerly line of Saratoga street; thence westerly about one hundred forty-eight (148) feet to the southerly line of Saratoga street; thence easterly by said southerly line of Saratoga street about eighty-three (83) feet; thence still easterly about ninety-one (91) feet by said southerly line of Saratoga street to the point of beginning.

*Parcel No. 2.* — Beginning at the intersection of the southwesterly line of Breed street with the northwesterly line of Bennington street, thence southwesterly by said northwesterly line about sixty-four (64) feet; thence westerly by the curved line of Bennington street and Saratoga street about eighty-eight (88) feet; thence westerly by the northerly line of Saratoga street about two hundred one (201) feet; thence easterly about eighty-eight (88) feet to a point distant four (4) feet northerly at a right angle from the northerly line of Saratoga street; thence still easterly about one hundred forty (140) feet to a point distant seventeen (17) feet northerly on a radial line from the curved line of Saratoga and Bennington streets; thence northeasterly about ninety-two (92) feet to a point distant twenty-three (23) feet northwesterly at a right angle from the northwesterly line of Bennington street and sixteen (16) feet southwesterly at a right angle from the southwesterly line of Breed street; thence northwesterly about one hundred fifty-eight (158) feet to the southwesterly line of Breed street; thence southeasterly by said southwesterly line about one hundred eighty (180) feet to the point of beginning.

*Parcel No. 3.* — Beginning at the intersection of the northwesterly line of Bennington street with the northeasterly line of Breed street, thence northwesterly by said northeasterly line which is partly straight and partly curved about one hundred seventy-seven (177) feet; thence southerly about thirty-eight (38) feet to a point distant six (6) feet on

a radial line from the curved northeasterly line of Breed street; thence southeasterly about one hundred nineteen (119) feet to a point distant twenty (20) feet northeasterly at a right angle from the northeasterly line of Breed street and twenty (20) feet northerly from the northwesterly line of Bennington street; thence northeasterly about seventy (70) feet to a point on the division line between land now or late of Antonio and Maria Frassica and land now or late of John Booth distant sixteen (16) feet from the northwesterly line of Bennington street; thence southeasterly by said division line five (5) feet; thence northeasterly about forty-five (45) feet to a point distant three (3) feet at a right angle from the westerly line of Antrim street; thence northerly about fifty-three (53) feet to the westerly line of Antrim street; thence southerly by said westerly line about sixty (60) feet to the northwesterly line of Bennington street; thence southwesterly by said northwesterly line about one hundred thirty-four (134) feet to the point of beginning.

*Parcel No. 4.*—Beginning at the intersection of the southeasterly line of Bennington street with the southerly line of Saratoga street, thence easterly by said southerly line about seventy-three (73) feet to an angle in said line, thence still easterly by said southerly line about thirty-nine (39) feet to the intersection of said line with the northeasterly line of a passageway; thence southwesterly by said northeasterly line about forty-three (43) feet; thence northwesterly by a line at a right angle to said passageway about four (4) feet; thence westerly about sixty-nine (69) feet to a point distant twenty-nine (29) feet at a right angle from the southerly line of Saratoga street and twenty-six (26) feet at a right angle from the southeasterly line of Bennington street; thence southwesterly about one hundred twenty-nine (129) feet to a point distant twenty-two (22) feet at a right angle from the southeasterly line of Bennington street; thence southwesterly about two hundred one (201) feet to the southeasterly line of Bennington street; thence northeasterly by said southeasterly line about three hundred forty-three (343) feet to the point of beginning.

*Parcel No. 6.*—Beginning at the intersection of the southerly line of Saratoga street with the southwesterly line of Bayswater street, thence southeasterly about eighty-six (86) feet to the intersection of the southwesterly line of Bayswater street with the northwesterly line of a private way known as Butler avenue; thence southwesterly by said northwesterly line about two hundred fifty-three (253) feet; thence northeasterly about two hundred twenty-eight (228) feet to a point distant northwesterly twenty-one (21) feet at a right angle from the northwesterly line of Butler avenue, and twenty-six (26) feet southwesterly from the southwesterly line of Bayswater street; thence northwesterly about fifty-two (52) feet to a point distant thirty-two (32) feet at a right angle from the southwesterly line of Bayswater street and thirty-three (33) feet at a right angle from the southerly line of Saratoga street; thence westerly about thirty-three (33) feet to a point

distant thirty-five (35) feet southerly at a right angle from the southerly line of Saratoga street; thence still westerly about twenty-four (24) feet to a point distant southeasterly about six (6) feet at a right angle from the southeasterly line of a passage way; thence northeasterly about six (6) feet to said southeasterly line of a passageway; thence northeasterly by said southeasterly line about thirty-three (33) feet to the southerly line of Saratoga street; thence easterly by said southerly line about fifty-one (51) feet to the point of beginning.

*Parcel No. 7.* — Beginning at a point on the northerly line of Saratoga street, said point being at the end of the curved street line connecting the northerly line of Saratoga street with the northwesterly line of a private way known as Butler avenue; thence westerly by said northerly line about one hundred and forty-eight (148) feet; thence southeasterly by a line parallel with the location of the Boston, Revere Beach and Lynn railroad about forty-eight (48) feet; thence turning at a right angle and running southeasterly about four (4) feet; thence easterly about one hundred twenty-two (122) feet to a point distant twenty-two (22) feet northwesterly from the northwesterly line of Butler avenue; thence easterly about one hundred seventy-three (173) feet to the northwesterly line of Butler avenue; thence southwesterly by said northwesterly line about one hundred seventy-two (172) feet; thence westerly by a curved line about twenty-eight (28) feet to the point of beginning.

*Parcel No. 8.* — Beginning at the intersection of the southeasterly line of the private way known as Butler avenue with the northeasterly line of a private way known as Thurston street, thence northeasterly by said southeasterly line about one hundred eighty (180) feet to the southwesterly line of Bayswater street; thence southeasterly by said southwesterly line about two hundred eleven (211) feet; thence northwesterly about one hundred ninety (190) feet to a point distant eighteen (18) feet at a right angle southwesterly from the southwesterly line of Bayswater street and twenty-two (22) feet at a right angle southeasterly from the southeasterly line of Butler avenue; thence southwesterly about one hundred sixty (160) feet to a point distant six (6) feet at a right angle southeasterly from the southeasterly line of Butler avenue and three (3) feet northeasterly at a right angle from the northeasterly line of Thurston street; thence southeasterly about forty-one (41) feet to the northeasterly line of Thurston street; thence northwesterly by said northeasterly line about forty-seven (47) feet to the point of beginning.

*Parcel No. 9.* — Beginning at the intersection of the northeasterly line of Bayswater street with the southeasterly line of a private way known as Butler avenue, thence northeasterly about sixty-five (65) feet by said southeasterly line to the southerly line of Saratoga street; thence easterly about one hundred seventy-nine (179) feet; thence westerly about one hundred seventy-two (172) feet to a point distant fourteen (14) feet at a right angle southerly from the southerly line of



Saratoga street and fifteen (15) feet at a right angle southeasterly from the southeasterly line of Butler avenue; thence southwesterly about forty-four (44) feet to a point distant at a right angle southwesterly sixteen (16) feet from the southeasterly line of Butler avenue and fifteen (15) feet at a right angle northeasterly from the northeasterly line of Bayswater street; thence about one hundred eighty-seven (187) feet to the northeasterly line of Bayswater street; thence northwesterly about two hundred two (202) feet by said northeasterly line to the point of beginning.

*Parcel No. 10.* — Beginning at a point on the northerly line of Saratoga street, said point being at the end of the curved street line connecting the northerly line of Saratoga street with the southeasterly line of a private way known as Butler avenue, thence northerly by said curved street line about forty-one (41) feet; thence northeasterly by the southeasterly line of Butler avenue about one hundred six (106) feet; thence southwesterly about one hundred six (106) feet to a point distant at a right angle southeasterly seven (7) feet from the southeasterly line of Butler avenue; thence southerly about twenty (20) feet to a point distant at a right angle seven (7) feet northerly from the northerly line of Saratoga street; thence easterly about ninety-eight (98) feet to the northerly line of Saratoga street; thence westerly by said northerly line about ninety-eight (98) feet to the point of beginning.

#### *Street Construction.*

Each of said streets and private ways altered or reconstructed, as aforesaid, is to be graded to a sufficient width to support a fence or railing on its side lines at finished grade and with sufficient filling to make side slopes of two horizontal to one vertical. The slopes are to be placed on the lots of land abutting on the streets or ways, and where other support is necessary retaining walls are to be constructed.

Each street or private way at its intersection with other streets is to have the grades thereof so altered by a curved line as to form easy transition curves from the grade of one street to the grade of the other, and wherever the new grades meet the present grades of the streets, and at all changes of grades, proper transition curves are to be used.

The sidewalks shall be of the following widths: Bennington street twenty (20) feet including the loam space; Saratoga street ten (10) feet on the northerly side between Bennington and Ford streets, and eight (8) feet on other portions of the street; Bayswater street, Breed street and Butler avenue eight (8) feet; Antrim street and Thurston street seven (7) feet.

The roadways of Bennington, Saratoga, Antrim and Bayswater streets, so far as they are altered in grade by this decision, shall have macadam surfaces eight (8) inches in depth, with gutters three (3) feet in width, paved with granite blocks, and the sidewalks adjoining are to have granite edgestones and wearing surfaces of crushed stone,

except that on Bennington and Saratoga streets the wearing surfaces shall be of brick, and where sidewalks of a more substantial construction now exist the sidewalks at the new grade shall be constructed in like manner. The areas on Bennington street now covered with loam shall be covered with loam at the new grade to a depth of not less than twelve (12) inches.

The roadways of Cowper street, and of all other streets and private ways so far as they are altered in grade by this decision, shall be surfaced with good gravel two (2) feet in depth, with gutters three (3) feet wide paved with granite blocks. The sidewalks shall have granite curbstones and wearing surfaces of crushed stone, except that where sidewalks of a more substantial character now exist the sidewalks at the new grade shall be constructed in like manner.

Each of said streets or private ways where altered, as aforesaid, is to be provided with suitable fences on each side where required for safety.

All sewers, drains and water pipes interfered with in carrying out this decision are to be replaced and rebuilt as and where directed by the commissioner of public works of Boston; and suitable catch basins and drains are to be built wherever alterations aforesaid in streets and ways render the same necessary.

#### *Right to Build and Maintain Streets, etc.*

All rights of the City of Boston to build or maintain a street beneath the bridge hereinafter provided for, and between the abutments thereof, are hereby abolished, but there is hereby reserved to the City of Boston the right to build, maintain and relay sewers, drains and water pipes in the earth, or otherwise, beneath said bridge provided that the head room hereinbefore specified is not diminished. The right is also reserved by said city to maintain and relay water pipes in the earth or otherwise beneath the surface of the said railroad on that part of said Short street which is discontinued.

#### *Plans.*

The alterations and details aforesaid are shown on a set of three plans filed herewith, and as a part hereof, marked "Plan for the Abolition of Grade Crossing on the Boston, Revere Beach and Lynn Railroad" dated March 15, 1911, and signed by the commissioners. All grades shown on the plan or given in this report are referred to Boston city base which is six-tenths (0.6) feet below the base of the Massachusetts board of harbor and land commissioners.

3. *Apportionment of Work.*— All public service corporations having rights in the streets within the limits of the alterations herein provided for are to care for the several structures owned by them.

The Boston, Revere Beach and Lynn Railroad Company shall do all

the work and furnish all material required by this report, decision, and accompanying plans; except that the laying, relaying and alterations of water pipes and sewers in the streets where required by the changes herein ordered shall be done by the City of Boston under the supervision of its commissioner of public works, and the construction of sidewalks, paving of gutters, and surfacing of roadways and of the bridge as herein ordered to be done by the railroad company shall also be done under the supervision of said commissioner of public works.

During the progress of the work the said railroad company shall maintain at or in the vicinity of Saratoga street a safe and convenient passage for vehicles and foot passengers across the tracks connecting streets not affected by the changes in grade.

*Apportionment of Cost.*

The cost of carrying out the provisions of this decision is to be paid as follows:—

For the alteration of the crossing at Saratoga street, the Commonwealth of Massachusetts shall pay twenty-five (25) per cent of the whole cost of the alterations, including those mentioned in section 37, part I, of chapter 463 of the Acts of 1906, and acts in addition thereto and in amendment thereof; the City of Boston, ten (10) per cent thereof; and the Boston, Revere Beach and Lynn Railroad Company, sixty-five (65) per cent thereof.

For the discontinuance of the crossing at Short street and the building in substitution therefor a new way in extension of Cowper street, and for all expenses incidental thereto, the Boston, Revere Beach and Lynn Railroad Company shall pay the whole cost.

Dated at Boston in the county of Suffolk this twenty-ninth day of March, 1911.

WALTER PERLEY HALL,  
GEORGE W. BISHOP,  
CLINTON WHITE,

*Commissioners.*

*Certificate.*

After consideration,—it is

*Ordered,* That the Board hereby certify that in its opinion the adoption of the plan for abolishing the grade crossings of Saratoga street and Short street and the tracks of the Boston, Revere Beach and Lynn railroad in the city of Boston, as set forth in the report of the members of this Board sitting as a special commission under appointment of the Superior Court, and the expenditure to be incurred thereunder are consistent with the public interests

and are reasonably required to secure a fair distribution between the different cities, towns and railroads of the commonwealth of the public money appropriated for the abolition of grade crossings, and that such expenditure will not in its judgment exceed the amount to be paid by the Commonwealth under the provisions of law relating thereto.

MARCH 29, 1911.      Attest:      ALLAN BROOKS,  
[7321]      *Assistant Clerk.*

CERTIFICATES RELATIVE TO ABOLITION OF GRADE CROSSINGS.

*Petition of the Old Colony Railroad Company for certificate relative to abolition of grade crossing in Somerset.*

After notice and hearing and an examination of the proposed plan for abolishing the grade crossing of the tracks of the Old Colony railroad and the highway known as Wilbur avenue in the town of Somerset, as set forth in the report of the special commission appointed by the Superior Court to consider the matter, and after consideration of the expenditure therein authorized,—it is

*Ordered.* That the Board hereby certify that in its opinion the adoption of said plan and the incurring of such expenditure are consistent with the public interests and are reasonably required to secure a fair distribution between the different cities, towns and railroads of the commonwealth of the public money appropriated for the abolition of grade crossings, and that such expenditure will not in its judgment exceed the amount to be paid by the Commonwealth under the provisions of law relating thereto.

JULY 10, 1911.      Attest:      CHARLES E. MANN,  
[8371]      *Clerk.*

*Petition of the Old Colony Railroad Company for certificate relative to abolition of grade crossing in Swansea.*

After notice and hearing and an examination of the proposed plan for abolishing the grade crossing of the tracks of the Old Colony railroad and the highway known as River road in the town of Swansea, as set forth in the report of the special commission appointed by the Superior Court to consider the matter, and after consideration of the expenditure therein authorized,—it is

*Ordered.* That the Board hereby certify that in its opinion the adoption of said plan and the incurring of such expenditure are

consistent with the public interests and are reasonably required to secure a fair distribution between the different cities, towns and railroads of the commonwealth of the public money appropriated for the abolition of grade crossings, and that such expenditure will not in its judgment exceed the amount to be paid by the Commonwealth under the provisions of law relating thereto.

Attest: CHARLES E. MANN,  
JULY 10, 1911. [8370] *Clerk.*

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#### CERTIFICATE AS TO EXPENDITURE.

*Petition of the New York, New Haven and Hartford Railroad Company and of the selectmen of the town of Norfolk for certificate as to amount expended in abolition of grade crossing in Norfolk.*

After consideration, — it is

*Ordered,* That the Board hereby certify that expenditures to the amount of two thousand one hundred four dollars and eighty-three cents (\$2,104.83) by the New York, New Haven and Hartford Railroad Company and to the amount of two hundred twenty-nine dollars and thirty-seven cents (\$229.37) by the Town of Norfolk have been legally and properly made in the abolition of the crossing of Grove street and the New York, New Haven and Hartford railroad in the town of Norfolk, according to the agreement made between the railroad company and the selectmen of the town under the provisions of section 41, part I, chapter 463, Acts of 1906, and approved by this Board on July 12, 1910.

Attest: CHARLES E. MANN,  
DECEMBER 30, 1911. [8579] *Clerk.*

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#### CHANGE OF GRADE OF RAILROADS.

*Petition of James D. Colt, Louis Perry and Henry H. Baker, special commissioners, for consent to change in the grade of the Old Colony railroad in Swansea.*

It appearing that a certain change in the grade of the Old Colony railroad in the town of Swansea is incidental to the plan adopted by the petitioners for the abolition of the grade crossing of River road and the railroad in that town, — it is

*Ordered*, That the consent of the Board be hereby given to the proposed change in the grade of the Old Colony railroad, as apparently necessary if the plan adopted by the special commission is to be carried out; this action, however, in no wise to prejudice the right of any person to suggest different action with regard to change in the grade of the railroad at the final hearing before this Board upon the approval of any plan for abolishing this crossing.

Attest: CHARLES E. MANN,  
JUNE 12, 1911. [8340] \_\_\_\_\_ Clerk.

#### ALTERATION OF CROSSINGS.

*Petition of the New York, New Haven and Hartford Railroad Company for approval of alteration of crossing of highway and railroad in Seekonk.*

It appearing, after notice and hearing, that the selectmen of the town of Seekonk and the directors of the New York, New Haven and Hartford Railroad Company and of the Boston and Providence Railroad Corporation are of opinion that it is necessary for the security and convenience of the public that an alteration be made in the crossing in the town of Seekonk, where the highway known as Perrins crossing passes over the railroad of the Boston and Providence Railroad Corporation, leased to and operated by the New York, New Haven and Hartford Railroad Company, by which the grade of the highway shall be altered so as to permit the construction of an additional track; that they are agreed upon the character of the alteration to be made, and that an instrument in writing specifying the manner and limits within which said alteration shall be made, the party by whom the work shall be done, the general method of construction and apportionment of cost, has been duly executed by the selectmen of the town of Seekonk and by the presidents of the railroad corporations, a copy of which agreement is as follows:

#### AGREEMENT FOR THE ALTERATION OF THE HIGHWAY WITH THE RAILROAD OF THE BOSTON AND PROVIDENCE RAILROAD CORPORATION IN THE TOWN OF SEEKONK, MASSACHUSETTS.

*Whereas* there is a certain highway in the town of Seekonk, known as Perrins crossing, which crosses the railroad of the Boston and Provi-

dence Railroad Corporation, leased to and operated by the New York, New Haven and Hartford Railroad Company, and the directors of said railroad companies and the selectmen of said town are of the opinion that it is necessary for the security and convenience of the public that an alteration shall be made in said crossing by which the grade of the highway shall be altered so as to permit the construction of a second track by said railroad companies, and have agreed as to the alteration which shall be made;

*Now, therefore*, in pursuance of the provisions of the Acts of 1906, chapter 463, part I, section 41, this agreement in writing is made and signed in behalf of said town by the chairman of the selectmen, and in behalf of the directors of said railroad companies by the presidents of said railroad companies, thereunto respectively authorized by the directors, specifying the manner and limits which the alterations shall be made, by whom the work shall be done, the general method of construction, and how the cost shall be borne.

#### *Alterations.*

The present bridge shall be removed and a new one constructed the floor of which shall be 20 feet in width, three and seventy-four one-hundredths (3.74) feet higher than the old bridge.

The north abutment shall be moved back so as to be thirty-one (31) feet distant from the present south abutment.

The approach to the bridge from the south shall be graded up to the elevation of the new bridge and shall descend southerly at the rate of 5% for a distance of about one hundred and eighty (180) feet or until it intersects the present grade of the highway.

The approach from the north shall be graded up to the elevation of the new bridge and shall descend northerly at the rate of 6% for a distance of about three hundred and fifty (350) feet or until it intersects the present grade. The approaches to be twenty-five (25) feet in width.

#### *Plan.*

The alterations hereinbefore described are shown upon a plan herewith and made a part hereof, entitled "New York, New Haven and Hartford Railroad, Providence Division, India Point Branch. Proposed change of Grade of Highway at Perrins Bridge, Town of Seekonk, Mass., February — 1911."

#### *Performance of the Work.*

The New York, New Haven and Hartford Railroad Company shall furnish all the material and do all the work necessary to accomplish the described alterations.

*Apportionment of Expenses.*

The total cost of the alterations as aforesaid, including the cost of any necessary hearings, the expenses of the board of railroad commissioners and its necessary agents, and all damages, shall be paid by the New York, New Haven and Hartford Railroad Company.

It is also agreed that the said New York, New Haven and Hartford Railroad Company shall keep the bridge and its approaches in good repair without cost to the town of Seekonk.

Signed in behalf of the selectmen of Seekonk by the chairman thereunto duly authorized, and in behalf of the boards of directors of the railroad companies by the presidents thereunto duly authorized.

TOWN OF SEEKONK,

By GEO. H. CARPENTER,  
*Chairman of Selectmen.*

NEW YORK, NEW HAVEN AND HARTFORD  
RAILROAD CO.,

By C. S. MELLEN,  
*President.*

BOSTON & PROVIDENCE RAILROAD COR-  
PORATION,

By PHILIP DEXTER,  
*President.*

It is *Ordered*, That the approval of the Board be hereby given to the agreement and to the alteration therein set forth as necessary for the convenience and security of the public.

Attest:                      CHARLES E. MANN,  
MAY 22, 1911.              [8247]                      *Clerk.*

*Petition of the New York, New Haven and Hartford Railroad Company for approval of alteration of crossing of highway and railroad in Walpole.*

It appearing, after notice and hearing, that the selectmen of the town of Walpole and the directors of the New York, New Haven and Hartford Railroad Company are of opinion that it is necessary for the security and convenience of the public that an alteration be made in the crossing where Elm street in Walpole passes under the New York, New Haven and Hartford railroad, by which the highway shall hereafter cross at right angles to the railroad and at an increased width; that they are agreed upon



the character of the alteration to be made, and that an instrument in writing specifying the manner and limits within which said alteration shall be made, the party by whom the work shall be done, the general method of construction and apportionment of cost, has been duly executed by the chairman of the selectmen of Walpole and by the president of the railroad company, a copy of which agreement is as follows:

AGREEMENT FOR THE ALTERATION OF CROSSING OF ELM STREET WITH  
THE RAILROAD OF THE NEW YORK, NEW HAVEN AND HARTFORD  
RAILROAD COMPANY IN THE TOWN OF WALPOLE, MASSACHUSETTS.

*Whereas* there is a certain highway in the town of Walpole known as Elm street, which crosses below the railroad of the New York, New Haven and Hartford Railroad Company, and the directors of said railroad company and the selectmen of said town are of the opinion that it is necessary for the security and convenience of the public that alterations be made in said crossing, by which the highway shall hereafter cross at right angles to the railroad and at an increased width, and have agreed as to the alterations which shall be made:

*Now, therefore*, in pursuance of the provisions of Acts of 1906, chapter 463, part I, section 41, this instrument in writing is made and signed in behalf of the selectmen of said town, by their chairman thereunto duly authorized, and in behalf of said directors by their president thereunto duly authorized, specifying the manner and limits within which the alterations shall be made, by whom the work shall be done, the general method of construction, and how the costs shall be borne.

*Alterations in the Highway.*

The highway known as Elm street shall be altered so as to cross the railroad at right angles with a full width of forty (40) feet, the westerly line of the highway beginning at the northwesterly side line of location of the railroad; thence running southeasterly crossing the railroad at right angles, and passing through a point two (2) feet northeasterly from the northerly corner of the present westerly abutment of the bridge; thence turning at the southeasterly side line of location of the railroad and running southerly to an intersection with the westerly line of old Station street at the point where an angle in said westerly line now exists. The easterly line of Elm street shall cross the location of the railroad at right angles, forty (40) feet northeasterly from the westerly line, shall be extended northwesterly to an intersection with the present easterly line of Elm street, and shall be extended easterly by a circular curve to a point of tangent on the northwesterly line of East street.

The parcels of land which shall be taken for the new portion of Elm

street are two, both being taken from the New York, New Haven and Hartford Railroad Company.

The first parcel is the small triangle bounded southeasterly by the northwesterly line of location of the railroad company, northeasterly by the new line of Elm street, and westerly by the old easterly line of Elm street.

The second parcel is the irregularly shaped parcel bounded northwesterly by the southeasterly side line of location of the railroad company; northerly by the new curved side line of Elm street; southeasterly by the side line of East street, and southwesterly by the old side line of Elm street.

The parcels of land which shall be discontinued as a portion of the highway are two.

The first parcel is the triangularly shaped parcel within the limits of the railroad location lying southwesterly of the new westerly line of Elm street.

The second parcel is the triangularly shaped parcel lying southerly of the railroad location and westerly of the new side line of the highway.

The new portion of the highway shall be constructed with a top dressing gravel of suitable quality, one foot thick and crowned at the center to the height of one foot, in accordance with the elevations shown on plan below mentioned.

#### *Bridge and Abutments.*

An addition of cement concrete masonry shall be built easterly of and in front of the main body of the present westerly abutment with the line of its face at the surface of the street conforming to the new westerly side line of Elm street.

The present easterly abutment shall be removed and a new cement concrete abutment shall be built with its face conforming with the new northeasterly side line of Elm street as above defined.

The opening between abutments shall be spanned by a half through steel girder bridge to support two tracks, which shall be built in accordance with the 1908 general specifications for steel railroad bridges of said railroad company with its usual standard floor.

There shall be a clear height of thirteen (13) feet between the lowest part of the underside of the bridge and the surface of the street on its center line crowned as above provided.

#### *Plans.*

The above work shall be located and built as shown on plan hereto attached, entitled: "N. Y., N. H. & H. R.R., Midland Division. Plan and Profile of Proposed Change of Elm street, Walpole, Mass., and for rebuilding the Railroad Bridge over the street. Boston, Aug. 24th, 1911."

The concrete elevations of the masonry and the surface of the street shall be with reference to the base of rail grade of the tracks as indicated by the elevation figures upon said plan.

*Performance of the Work.*

The New York, New Haven and Hartford Railroad Company shall furnish all material and do all the work to accomplish the above described alterations, so far as the same are within the limits of its five-rod location, including bridge and abutments and construction of highway.

The Town of Walpole shall furnish all material and do all the work to accomplish the above described alterations so far as they lie outside of the said five-rod location of said railroad company.

*Apportionment of Cost.*

The total cost of the alterations aforesaid, including the cost of any necessary hearings, the expense of the board of railroad commissioners and its necessary agents, shall be paid by the New York, New Haven and Hartford Railroad Company, except that the work outside of said five-rod location, which is to be done by the Town of Walpole, shall be done by the latter at its own expense, and except that upon completion of the work the Town of Walpole is to reimburse said railroad company to the extent of three thousand dollars (\$3,000).

The railroad company shall claim no damage on account of the two parcels of land taken from it for the new portion of Elm street, nor on account of the increased width of the crossing as altered hereby.

Signed in behalf of the selectmen of the town of Walpole, by the chairman thereunto duly authorized, and in behalf of the directors of the railroad company by the president thereunto duly authorized, this eleventh day of September, 1911.

SELECTMEN OF WALPOLE,

By HENRY M. STOWELL,

*Chairman.*

NEW YORK, NEW HAVEN AND HARTFORD  
RAILROAD COMPANY,

By C. S. MELLEN,

*President.*

It is *Ordered*, That the approval of the Board be hereby given to the agreement and to the alterations therein set forth as necessary for the convenience and security of the public.

Attest:

CHARLES E. MANN,

SEPTEMBER 28, 1911.

[8472]

*Clerk.*

*Designation of member of the Board for appointment on special commission.*

In the matter of the alteration of the crossing of Athol road and the tracks of the Fitchburg railroad (Boston and Maine Railroad, lessee) in the town of Athol, the Board, acting under the provisions of section 26, part I, chapter 463, Acts of 1906, designates George W. Bishop, one of its members, for appointment by the Superior Court on a special commission to determine the questions named in said section.

For the Board,

CHARLES E. MANN,

JUNE 28, 1911. [8369]

*Clerk.*

During the year the Board has also designated Commissioner Bishop for appointment on special commissions in the matter of the alteration of the following crossings:

Deerfield, October 10, 1911 — Old County road and the tracks of the Connecticut River railroad (Boston and Maine Railroad, lessee). [8509]

Greenfield, October 10, 1911 — Old County road and the tracks of the Connecticut River railroad (Boston and Maine Railroad, lessee). [8510]

Groton, June 6, 1911 — Pleasant street and the tracks of the Boston and Maine railroad. [8325]

Groton, October 4, 1911 — Main street and the tracks of the Boston and Maine railroad. [8501]

Groton, October 20, 1911 — West street and the tracks of the Boston and Maine railroad. [8526]

Lancaster, March 22, 1911 — Road to Bolton and the tracks of the Worcester, Nashua and Rochester railroad (Boston and Maine Railroad, lessee). [8211]

Lawrence, October 5, 1911 — South Union street and the tracks of the Boston and Maine railroad. [8502]

Richmond, West Stockbridge, October 28, 1911 — Main highway between Richmond and State Line and the tracks of the Boston and Albany railroad. [8537]

DIVIDENDS.

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*Report of the Board on an order of the house of representatives relative to the lowering of the rate of dividend declared by the Boston and Maine Railroad.*

*To the Honorable the House of Representatives:*

On May 11, 1911, the house of representatives

*Ordered*, That the board of railroad commissioners be instructed and authorized to investigate and hold public hearings relative to the lowering of the rate of dividend declared by the Boston and Maine Railroad, and report its findings to the house not later than May 31, 1911.

In pursuance of the foregoing order the board of railroad commissioners held a public hearing, duly notified, at its office in Boston, and both before and since the public hearing has given its earnest attention to the investigation authorized by the order. In view of the time limit specified in the order, together with the fact that there was no appropriation of money made for the purposes of the investigation, the Board feels justified in assuming that what the house of representatives desires is a short statement relative to the decreased dividend rate on the capital stock of the Boston and Maine Railroad, and such suggestions and reasons for said decrease of dividend rate as the Board may be able to give without a prolonged study of the financial affairs of the company and an accompanying audit of its books and vouchers.

Holding this opinion, we have taken the annual return of the Boston and Maine Railroad for the year ending June 30, 1910, prepared upon blanks in form adopted by the interstate commerce commission and the Board, and have requested that the company prepare and furnish a monthly summary of its operations for the twelve months ending June 30, 1910, together with a monthly summary of its operations for nine months thereafter, the end of the period of declared dividends at the former rate, and by a comparison of these statements and an estimate of financial conditions

likely to develop for the period of three months ending June 30, 1911, ascertain, if may be, the financial situation confronting the management of the Boston and Maine railroad at the time of the lowering of the rate of dividend. We therefore append to this report Exhibit A, a comparative statement showing the result of operations for the nine months ending March 31, 1910, and March 31, 1911, respectively, certified as correct by the fourth vice-president and general auditor of the Boston and Maine Railroad. Accompanying this exhibit and made a part of the same is found the sustaining data upon which the comparative statement is compiled. These figures, taken together, present the situation that confronted the company in taking its recent action in lowering the dividend rate.

The Board also attaches to this report Exhibit B, a comparative statement showing the result of operations for the month of April, 1911, certified as correct by the fourth vice-president and general auditor of the Boston and Maine Railroad. These results were, of course, not known to the management of the Boston and Maine Railroad when the dividend for the quarter ending June 30, 1911, was declared, and are here inserted solely for the purpose of checking so far as possible estimates of results of operations for May, 1911, not yet compiled, and June, 1911. It is, of course, difficult to form any correct estimate as to the amount of net corporate income which will result from the operations of May and June, but inasmuch as the larger proportion of the increased wage schedules had gone into effect in May, 1910, and there will probably be a considerable saving in taxes as compared with last year, it would appear that there is reasonable prospect of expecting that the net corporate income for May and June will show some increase. This increase has been estimated by the financial vice-president as perhaps \$100,000 above the same period for 1910. If this forecast be correct, it is not unreasonable to believe that the net corporate income for the present fiscal year, ending June 30, 1911, may be a sum not in excess of \$500,000.

Many of the conditions surrounding the Boston and Maine Railroad and its property are too well known by the general public to require restatement. In common with other railroads large expenditures have been required for labor and materials. While the gross revenue from transportation shows an increase for the period of ten months ending April 30, 1911, over the corresponding period of

1910, operating expenses show a much larger increase for the same period. The estimates disclose that if the maximum estimate for increased revenue is sustained in fact for the year ending June 30, 1911, the minimum estimate for expenditures will necessarily show net corporate income applicable to dividends of a sum considerably less than that shown for the year ending June 30, 1910. In other words, under the best and most favorable anticipated conditions the earnings of the Boston and Maine Railroad for the year ending June 30, 1911, will be considerably less than the earnings for the year ending June 30, 1910. This result, which speaks for itself, is probably sufficient reason why the dividend has been lowered. In addition, however, to the labor and material expenditures of the company, the Boston and Maine Railroad, under its present management, is devoting large sums of money to improve conditions upon its property, for which capital is required, and which necessarily, by reason of the dividend requirements, has some effect upon the dividend rate. Without suggesting that this latter condition is a permanent one, or holding the conviction that increased earnings in the future may not result in a more favorable condition of affairs, we respectfully suggest to the house of representatives that a careful examination of the annexed exhibits will disclose the situation in detail and furnish the sustaining data for the conclusions of the Board.

WALTER PERLEY HALL,  
GEORGE W. BISHOP,  
CLINTON WHITE,

MAY 31, 1911. [8271]

*Commissioners.*

## EXHIBIT A.

## BOSTON AND MAINE RAILROAD.

*Comparative Statement Showing Result of Operations, March 31, 1911.*

	NINE MONTHS TO MARCH 31 —		Increase.	Decrease.
	1911.	1910.		
<i>Revenue from Transportation.</i>				
Freight revenue, . . . . .	\$19,277,010 98	\$19,124,313 02	\$152,697 96	-
Passenger revenue, . . . . .	11,771,054 59	11,048,266 19	722,788 40	-
Excess baggage revenue, . . . . .	81,409 92	82,323 79	-	\$913 87
Parlor and chair car revenue, . . . . .	538 50	632 75	-	94 25
Mail revenue, . . . . .	333,715 80	334,862 78	-	1,146 98
Express revenue, . . . . .	932,505 05	889,390 35	43,114 70	-
Milk revenue (on passenger trains), . . . . .	219,050 30	189,386 13	29,664 17	-
Other passenger train revenue, . . . . .	68,849 86	64,843 12	4,006 74	-
Switching revenue, . . . . .	251,715 56	224,352 10	27,363 46	-
Special service train revenue, . . . . .	43,825 05	43,702 39	122 66	-
Miscellaneous transportation revenue, . . . . .	41,970 61	38,041 26	3,929 35	-
Total revenue from transportation, . . . . .	\$33,021,646 22	\$32,040,113 88	\$981,532 34	-
<i>Revenue from Operations other than Transportation.</i>				
Station and train privileges, . . . . .	\$44,506 35	\$39,716 65	\$4,789 70	-
Parcel room receipts, . . . . .	23,190 57	22,209 99	980 58	-
Storage — freight, . . . . .	53,506 73	33,830 71	19,676 02	-
Storage — baggage, . . . . .	13,451 79	13,243 65	208 14	-
Car service — demurrage, . . . . .	177,846 81	168,127 66	9,719 15	-
Telegraph service, . . . . .	18,091 47	15,608 48	2,482 99	-
Rents of buildings and other property, . . . . .	90,490 92	87,552 69	2,938 23	-
Miscellaneous, . . . . .	124,847 82	122,059 71	2,788 11	-
Total revenue from operations other than transportation, . . . . .	\$545,932 46	\$502,349 54	\$43,582 92	-
Total operating revenue, . . . . .	\$33,567,578 68	\$32,542,463 42	\$1,025,115 26	-
Operating expenses, . . . . .	\$26,030,907 34	\$23,233,612 16	\$2,797,295 18	-
Net operating revenue, . . . . .	\$7,536,671 34	\$9,308,851 26	-	\$1,772,179 92
Outside operations (net), . . . . .	\$42,419 77	\$52,276 21	-	\$9,856 44
Total net revenue, . . . . .	\$7,579,091 11	\$9,361,127 47	-	\$1,782,036 36
Taxes accrued, . . . . .	\$1,623,171 58	\$1,580,411 23	\$42,760 35	-
Operating income, . . . . .	\$5,955,919 53	\$7,780,716 24	-	\$1,824,796 71



*Comparative Statement Showing Result of Operations — Concluded.*

	NINE MONTHS TO MARCH 31 —		Increase.	Decrease.
	1911.	1910.		
<i>Other Income.</i>				
Rents, . . . . .	\$195,367 73	\$176,272 63	\$19,095 10	-
Income from stocks and bonds, . . . .	272,397 55	219,859 80	52,537 75	-
Interest received, . . . . .	52,421 23	67,954 47	-	\$15,533 24
Miscellaneous, . . . . .	5,365 90	6,021 43	-	655 58
Total other income, . . . . .	\$525,552 41	\$470,108 38	\$55,444 03	-
Gross corporate income, . . . .	\$6,481,471 94	\$8,250,824 62	-	\$1,769,352 68
<i>Deductions from Gross Corporate Income.</i>				
Rents accrued for lease of other roads,	\$3,963,249 25	\$3,945,248 21	\$18,001 04	-
Hire of equipment, . . . . .	694,502 81	591,150 12	103,352 69	-
Miscellaneous rents, . . . . .	42,860 88	45,930 08	-	\$3,069 20
Interest accrued, . . . . .	1,385,936 02	1,294,206 06	91,729 96	-
Sinking fund, . . . . .	21,588 75	21,588 75	-	-
Total deductions, . . . . .	\$6,108,137 71	\$5,898,123 22	\$210,014 49	-
Net corporate income, . . . . .	\$373,334 23	\$2,352,701 40	-	\$1,979,367 17
Net corporate loss, . . . . .	-	-	-	-
<i>Dividends — Proportions.</i>				
On preferred stock, . . . . .	\$141,741 00	\$141,741 00	-	-
On common stock, . . . . .	1,396,710 20	1,246,912 50	\$149,797 70	-
Total dividends, . . . . .	\$1,538,451 20	\$1,388,653 50	\$149,797 70	-
Balance in excess of dividends, . . . .	-	\$964,047 90	-	\$2,129,164 87
Deficit, . . . . .	\$1,165,116 97	-	-	-
Additions and betterments to be charged to income, . . . . .	33,780 26	200,082 21	-	166,301 95
Balance, . . . . .	\$1,198,897 23	\$763,965 69	-	\$1,962,862 92
Percentage of operating expenses to operating revenue, . . . . .	77.55	71.39	-	-

OFFICE OF FOURTH VICE-PRESIDENT AND GENERAL AUDITOR,  
BOSTON, May 31, 1911.

W. J. HOBBS,  
Fourth Vice-President and General Auditor.

*Comparative Statement of Operating Expenses.*

OPERATING EXPENSES.	NINE MONTHS TO MARCH 31 —		Increase.	Decrease.
	1911.	1910.		
<i>Maintenance of Way and Structures.</i>				
1. Superintendence, . . . . .	\$129,180 10	\$116,350 09	\$12,830 01	-
2. Ballast, . . . . .	21,156 62	14,120 65	7,035 97	-
3. Ties, . . . . .	542,264 63	690,389 63	-	\$148,125 00
4. Rails, . . . . .	321,749 71	201,882 01	119,867 70	-
5. Other track material, . . . . .	298,100 24	240,620 72	57,479 52	-
6. Roadway and track, . . . . .	1,562,360 90	1,401,747 21	160,613 69	-
7. Removal of snow, sand and ice, . . . . .	121,312 30	206,187 72	-	84,875 42
8. Tunnels, . . . . .	16,302 49	12,817 04	3,485 45	-
9. Bridges, trestles and culverts, . . . . .	312,764 45	129,996 01	182,768 44	-
10. Over and under grade crossings, . . . . .	20,089 27	25,775 82	-	5,686 55
11. Grade crossings, fences, cattle guards and signs.	101,214 87	105,312 66	-	4,097 79
12. Snow and sand fences and snow sheds.	442 84	106 74	336 10	-
13. Signals and interlocking plants, . . . . .	180,715 71	150,598 24	30,117 47	-
14. Telegraph and telephone lines, . . . . .	12,285 56	12,720 54	-	434 98
16. Buildings, fixtures and grounds, . . . . .	537,568 06	415,518 81	122,049 25	-
17. Docks and wharves, . . . . .	6,666 33	54,485 99	-	61,152 32
18. Roadway tools and supplies, . . . . .	50,154 97	50,836 75	-	681 78
19. Injuries to persons, . . . . .	18,025 41	14,711 56	3,313 85	-
20. Stationery and printing, . . . . .	5,241 31	4,765 90	475 41	-
21. Other expenses, . . . . .	761 61	1,125 87	-	364 26
22. Maintaining joint tracks, yards and O. F. Dr.	66,246 96	25,896 66	40,350 30	-
23. Maintaining joint tracks, yards and O. F. Cr.	24,464 13	25,004 31	-	540 18
Total, . . . . .	\$4,286,807 55	\$3,850,962 31	\$435,845 24	-
<i>Maintenance of Equipment.</i>				
24. Superintendence, . . . . .	\$121,017 42	\$108,617 94	\$12,399 48	-
25. Steam locomotives — repairs, . . . . .	1,584,851 00	1,415,787 56	169,063 44	-
26. Steam locomotives — renewals, . . . . .	12,628 62	16,528 15	-	\$3,899 53
27. Steam locomotives — depreciation, . . . . .	226,783 29	201,818 92	24,964 37	-
Electric locomotives — repairs, . . . . .	818 43	-	818 43	-
31. Passenger-train cars — repairs, . . . . .	642,191 25	546,814 40	95,376 85	-
32. Passenger-train cars — renewals, . . . . .	42,255 41	13,444 20	28,811 21	-
33. Passenger-train cars — deprecia- tion.	108,524 63	90,871 66	17,652 97	-
34. Freight-train cars — repairs, . . . . .	1,239,676 23	1,078,685 01	160,991 22	-
35. Freight-train cars — renewals, . . . . .	7,845 92	24,868 37	-	17,022 45

*Comparative Statement of Operating Expenses — Continued.*

OPERATING EXPENSES.	NINE MONTHS TO MARCH 31 —		Increase.	Decrease.
	1911.	1910.		
36. Freight-train cars — depreciation,	\$458,207 62	\$423,040 47	\$35,167 15	-
43. Work equipment — repairs, . . .	31,732 31	20,848 70	10,883 61	-
44. Work equipment — renewals, . . .	1,090 65	2,647 03	-	\$1,556 38
45. Work equipment — depreciation, .	9,796 05	7,095 91	2,700 14	-
46. Shop machinery and tools, . . .	53,707 92	40,677 32	13,030 60	-
48. Injuries to persons, . . .	15,030 55	13,351 26	1,679 29	-
49. Stationery and printing, . . .	6,952 15	7,415 04	-	462 89
50. Other expenses, . . .	-	1 10	-	1 10
51. Maintaining joint equipment at terminals — Dr.	7,412 47	3,604 50	3,807 97	-
52. Maintaining joint equipment at terminals — Cr.	3,642 19	2,715 88	926 31	-
Total, . . .	\$4,566,879 73	\$4,013,401 66	\$553,478 07	-
<i>Traffic Expenses.</i>				
53. Superintendence, . . .	\$110,899 28	\$105,724 12	\$5,175 16	-
54. Outside agencies, . . .	77,160 60	65,115 35	12,045 25	-
55. Advertising, . . .	88,048 86	94,812 46	-	\$6,763 60
56. Traffic associations, . . .	9,533 23	6,992 08	2,541 15	-
57. Fast freight lines, . . .	54,530 02	58,816 95	-	4,286 93
Industrial bureau, . . .	4,377 83	4,514 31	-	136 48
59. Stationery and printing, . . .	29,970 11	43,030 40	-	13,060 29
60. Other expenses, . . .	22 00	31 80	-	9 80
Total, . . .	\$374,541 93	\$379,037 47	-	\$4,495 54
<i>Transportation Expenses.</i>				
61. Superintendence, . . .	\$215,741 65	\$202,349 24	\$13,392 41	-
62. Dispatching trains, . . .	90,221 56	82,604 89	7,616 67	-
63. Station employees, . . .	2,821,916 76	2,606,753 09	215,163 67	-
64. Weighing and car-service associa- tions.	1,366 96	449 30	917 66	-
66. Station supplies and expenses, . .	260,655 34	258,400 70	2,254 64	-
67. Yardmasters and their clerks, . .	330,523 19	300,763 11	29,760 08	-
68. Yard conductors and brakemen, . .	1,094,400 66	893,946 70	200,453 96	-
69. Yard switch and signal tenders, . .	139,016 14	127,773 78	11,242 36	-
70. Yard supplies and expenses, . . .	15,266 96	19,949 94	-	\$4,682 98
71. Yard enginemen, . . .	536,307 04	484,477 53	51,829 51	-
72. Enginehouse expenses — yard, . .	129,611 19	120,022 65	9,588 54	-
73. Fuel for yard locomotives, . . .	549,071 60	566,531 93	-	17,460 33
74. Water for yard locomotives, . . .	14,829 75	22,183 09	-	7,353 34

*Comparative Statement of Operating Expenses — Continued.*

OPERATING EXPENSES.	NINE MONTHS TO MARCH 31 —		Increase.	Decrease.
	1911.	1910.		
75. Lubricants for yard locomotives, .	\$5,603 99	\$3,563 11	\$2,035 88	-
76. Other supplies for yard locomotives.	5,534 59	12,131 41	-	\$6,596 82
77. Operating joint yards and terminals — Dr.	269,125 64	72,150 97	196,974 67	-
78. Operating joint yards and terminals — Cr.	175,711 04	146,567 68	29,143 36	-
80. Road enginemen, . . . .	1,743,031 84	1,451,820 23	291,211 61	-
81. Enginehouse expenses — road, .	437,934 67	393,294 76	44,639 91	-
82. Fuel for road locomotives, . .	3,183,460 96	2,860,146 75	323,314 21	-
83. Water for road locomotives, . .	146,604 44	148,075 21	-	1,470 77
84. Lubricants for road locomotives, .	31,506 62	21,965 49	9,541 13	-
85. Other supplies for road locomotives.	40,178 42	33,604 69	6,573 73	-
88. Road trainmen, . . . .	2,148,077 58	1,847,212 57	300,865 01	-
89. Train supplies and expenses, .	397,380 28	408,306 92	-	10,926 64
90. Interlockers, block and other signals — operation.	373,363 73	344,778 87	28,584 86	-
91. Crossing flagmen and gatemen, .	343,599 35	322,580 47	21,018 88	-
92. Drawbridge operation, . . .	32,718 62	30,015 87	2,702 75	-
93. Clearing wrecks, . . . .	32,081 38	30,772 10	1,309 28	-
94. Telegraph and telephone — operation.	161,443 96	134,265 48	27,178 48	-
97. Stationery and printing, . .	125,730 46	124,346 79	1,383 67	-
98. Other expenses, . . . .	20,014 01	1,556 69	18,457 32	-
99. Loss and damage — freight, .	177,099 58	174,609 50	2,490 08	-
100. Loss and damage — baggage, .	3,574 66	3,128 33	446 33	-
101. Damage to property, . . . .	54,361 68	76,906 61	-	22,544 93
102. Damage to stock on right of way, .	2,241 21	2,251 98	-	10 77
103. Injuries to persons, . . . .	247,140 48	208,838 27	38,302 21	-
104. Operating joint tracks and facilities — Dr.	7,900 87	11,512 10	-	3,611 23
105. Operating joint tracks and facilities — Cr.	31,018 71	9,726 54	21,292 17	-
Total, . . . . .	\$15,981,908 07	\$14,247,751 90	\$1,734,156 17	-
<i>General Expenses.</i>				
106. Salaries and expenses of general officers.	\$99,605 75	\$87,496 81	\$12,108 94	-
107. Salaries and expenses of clerks and attendants.	276,486 48	252,019 40	24,467 08	-
108. General office supplies and expenses.	9,093 00	8,567 51	525 49	-
109. Law expenses, . . . .	178,953 45	151,882 69	27,070 76	-
110. Insurance, . . . .	188,276 57	179,224 91	9,051 66	-
112. Pensions, . . . .	18,424 18	11,637 52	6,786 66	-
113. Stationery and printing, . .	27,359 94	25,587 27	1,772 67	-

*Comparative Statement of Operating Expenses — Concluded.*

OPERATING EXPENSES.	NINE MONTHS TO MARCH 31 —		Increase.	Decrease.
	1911.	1910.		
114. Other expenses, . . . .	\$22,076 24	\$25,659 95	-	\$3,583 71
115. General administration joint tracks, yards and terminals— Dr.	494 45	382 76	\$111 69	-
116. General administration joint tracks, yards and terminals— Cr.	-	-	-	-
Total, . . . . .	\$820,770 06	\$742,458 82	\$78,311 24	-
Total operating expenses, . . .	\$26,030,907 34	\$23,233,612 16	\$2,797,295 18	-
Locomotive miles run, . . . .	24,166,818	23,676,869	-	-

## EXHIBIT B.

## BOSTON AND MAINE RAILROAD.

## Comparative Statement Showing Result of Operations, April 30, 1911.

	MONTH OF APRIL —			Increase or Decrease.		TEN MONTHS ENDING APRIL 30 —		
	1911.	1910.				1911.	1910.	
Freight revenue, . . . . .	\$2,070,557 99	\$2,146,081 73		Decrease, \$75,523 74		\$21,347,568 97	\$21,270,394 75	Increase, \$77,174 22
Passenger revenue, . . . . .	1,155,171 87	1,119,737 74		Increase, 35,434 13		12,926,226 46	12,168,003 93	Increase, 758,222 53
Mail revenue, . . . . .	36,969 95	36,980 46		Decrease, 10 51		370,685 45	371,843 24	Decrease, 1,157 49
Express, excess baggage and milk revenue, . . . . .	146,341 05	138,975 22		Increase, 7,365 83		1,379,306 52	1,300,075 22	Increase, 79,230 30
Switching revenue, . . . . .	95,423 61	27,750 41		Decrease, 2,226 80		977,139 17	959,102 51	Increase, 25,036 66
Other transportation revenue, . . . . .	16,014 92	14,453 05		Increase, 1,561 87		171,198 94	161,672 57	Increase, 9,526 37
Total transportation revenue, . . . . .	3,450,479 39	3,483,978 61		Decrease, 33,499 22		36,472,125 61	35,524,082 49	Increase, 948,043 12
Other operating revenue, . . . . .	54,181 67	53,706 75		Decrease, 1,525 08		600,114 13	558,056 29	Increase, 42,057 84
Total operating revenue, . . . . .	3,504,661 06	3,539,685 36		Decrease, 35,024 30		37,072,239 74	36,082,148 78	Increase, 990,090 96
Operating expenses, . . . . .	2,704,204 65	2,464,955 04		Increase, 239,239 61		28,735,201 99	25,698,567 20	Increase, 3,036,634 79
Net operating revenue, . . . . .	800,366 41	1,074,730 32		Decrease, 274,363 91		8,337,037 75	10,383,581 58	Decrease, 2,046,543 83
Outside operations (net), . . . . .	7,322 48	1,107 49		Increase, 6,214 99		49,742 25	53,383 70	Decrease, 3,641 45
Total net revenue, . . . . .	807,688 89	1,075,837 81		Decrease, 268,148 92		8,386,780 00	10,436,965 28	Decrease, 2,050,185 28
Taxes, . . . . .	172,261 98	165,489 65		Increase, 6,772 33		1,795,433 56	1,745,900 88	Increase, 49,532 68
Rents, . . . . .	635,426 91	910,348 16		Decrease, 274,921 25		6,591,346 44	8,691,064 40	Decrease, 2,099,717 96
Operating income, . . . . .	20,606 91	19,450 52		Increase, 1,156 39		216,064 64	195,723 15	Increase, 20,341 49
Income from stocks and bonds, . . . . .	8,533 98	13,815 49		Decrease, 5,281 51		272,397 55	219,859 80	Increase, 52,537 75
Other income, . . . . .	664,657 80	943,614 17		Decrease, 278,956 37		66,321 11	87,791 44	Decrease, 21,470 33
Gross corporate income, . . . . .	655,212 14	674,889 19		Decrease, 19,677 05		7,146,129 74	9,194,438 70	Decrease, 2,048,309 05
Rentals, hire of equipment, interest and sinking fund, . . . . .	3,445 06	268,744 98		Decrease, 259,299 32		6,763,279 85	6,573,992 41	Increase, 190,287 44
Dividends — proportion, . . . . .	140,172 08	199,955 50		Decrease, 19,783 42		382,749 89	2,621,446 38	Decrease, 2,238,696 49
Balance of net corporate income, . . . . .	130,756 42	108,789 48		Decrease, 239,545 90		1,678,623 28	1,548,609 00	Increase, 130,014 28
Additions and betterments to be charged to income, . . . . .	614 63	975 12		Decrease, 360 49		1,295,873 89	1,072,837 38	Increase, 2,268,710 77
Balance, . . . . .	131,371 05	107,814 36		Decrease, 239,185 41		34,394 94	201,057 33	Decrease, 166,662 44
Locomotive miles run, . . . . .	2,529,618	2,539,650		Decrease, 10,032		1,330,268 28	871,780 05	Increase, 2,202,048 33
Equipment, depreciation and renewals included in operating expenses, . . . . .	\$102,363 16	\$88,194 14		Decrease, 14,169 02		26,696,436	26,216,519	Increase, 479,917
				-		\$969,495 35	\$868,524 95	-

1 Deficit.

OFFICE OF FOURTH VICE-PRESIDENT AND GENERAL AUDITOR, BOSTON, MAY 31, 1911.  
W. J. HOBBS,  
Fourth Vice-President and General Auditor.

## STREET RAILWAYS EARNING FIVE PER CENT DIVIDENDS.

*Communication.*

*To the Honorable, The Bank Commissioner of the Commonwealth,  
State House, Boston, Massachusetts.*

DEAR SIR:— After further examination and investigation since December 18th, 1911, the date of our former communication to you, we desire, pursuant to the provisions of Acts of 1908, chapter 590, part V, section 68, *Fifth*, to transmit the following list of street railway companies incorporated in this commonwealth which appear from the returns made by them to have annually earned and properly paid, without impairment of assets or capital stock, an amount in dividends equal to at least five per cent upon their outstanding capital stock in each of the five preceding years, with the exception of the nine months between September 30, 1909, and June 30, 1910, which period is deemed to be one of the said years, but to which the requirement that dividends equal to at least five per cent upon all their outstanding capital stock shall have been earned and paid does not apply, as provided in section 2 of chapter 502 of the Acts of the year 1909:

Boston Elevated	Fitchburg and Leominster
Boston and Northern	Holyoke
Boston and Revere Electric	Springfield
Citizens' Electric	Union
East Middlesex	West End.

For the Board,

FREDERICK J. MACLEOD,

*Chairman.*

DECEMBER 26, 1911. [S615]

PUBLIC EXIGENCY.

---

*Petition of the Old Colony Railroad Company for certificate that public necessity and convenience require the construction of two branches or extensions of its railroad in the city of New Bedford.*

On the above petition the Board has given a public hearing and taken a view.

It appears that the company has finished the construction of its railroad and put it in operation and that it desires to build two branches or extensions thereof wholly within the limits of the city of New Bedford; the first, or north branch, beginning at a point on its right of way in the southerly line of Wamsutta street opposite North Front street, thence running in a general northerly direction for a distance of about ninety-six hundred feet to a point in Bellevue avenue near Shaw street, so called; the second, or south branch, beginning at a point in the easterly line of Front street between School and Walnut streets, thence running in a general southerly direction for a distance of about thirteen thousand feet, to a point in Orchard street about fifteen hundred feet northerly of Cove road; together with certain spurs, connecting and terminal tracks starting from said branches, respectively, as shown on a plan presented with the petition. Accompanying the petition and plan is an estimate of the probable cost of the branches or extensions. This estimate includes the construction of a single track railroad, with the necessary sidings, spurs and connections, with no bridges over highways, other railroads or navigable streams and tide waters. The estimated cost of the construction, not including land damages, is \$275,000.

It further appears from an examination of the plans and estimates that substantial portions of the proposed branches or extensions are to be located in public ways in the city of New Bedford. Certain ways through which the tracks are routed by the plan are now devoted in whole or in part to commercial or residential uses and many of the ways are very narrow for city traffic.



The petition, plans and estimates, taken together, disclose proposals for two branches or extensions of the Old Colony railroad to serve the city of New Bedford primarily as industrial tracks, with mill-yard connections by side tracks and switches with many of the local industries in that city. While the primary question is whether the public necessity and convenience require the construction of these branches or extensions, we prefer to suspend judgment upon this issue and discuss in the first instance the general scheme. It may well be that a sound demand exists for mill-yard railroad facilities in New Bedford, and that adequate facilities to that end may, after proper study and investigation, be properly planned and executed. We are, however, unanimously of the opinion that the project now before us, contemplating as it does the use in large measure of city streets for industrial tracks running longitudinally therein, is not in the public interest, but on the contrary would ultimately work great hardship to the city of New Bedford and its citizens.

In view of the whole public interest of New Bedford, its citizens and its industries, we continue the petition now before us for further investigation and study by the company, if it desires to engage in the same. We deem it our duty, however, to add that any modified proposals for branches or extensions of the Old Colony railroad in the city of New Bedford should contemplate, so far as practicable, branches or extensions upon private rights of way and eliminate to the largest feasible extent the highways of that city from consideration as locations for railroad tracks to be used either in connection with mill-yard sidings or in lieu of sufficient freight yard accommodations.

Petition continued.

For the Board,

CHARLES E. MANN,

MARCH 21, 1911. [8166]

*Clerk.*

## EXPRESS — STREET RAILWAY.

*Petition of the Worcester Merchants Association of the city of Worcester that the Worcester Consolidated Street Railway Company be required to act as a common carrier of newspapers, baggage, express matter and freight in Worcester.*

FRANK B. HALL for Worcester Merchants Association.

E. H. VAUGHAN for City of Worcester.

B. W. WARREN for Worcester Consolidated Street Railway Company.

It appearing, after notice and hearing, held under the provisions of chapter 402 of the Acts of 1907, that the Worcester Consolidated Street Railway Company has heretofore filed with the board of aldermen of the city of Worcester a petition for approval of the right to act as a common carrier of newspapers, baggage, express matter and freight in that city; and the aldermen having failed to act on said petition within sixty days of the filing thereof, and the Board being of opinion that the Worcester Consolidated Street Railway Company should be required to act as such common carrier, — it is

*Ordered*, That the Board hereby certify that the public convenience and necessity require the granting of said petition of the Worcester Merchants Association of the city of Worcester, and therefore that the Worcester Consolidated Street Railway Company be required to act as a common carrier upon the following lines of its railway in Worcester, viz.: From Washington square through Shrewsbury street to Belmont street, and through Belmont street to the line of the town of Shrewsbury; from Washington square through Grafton street to the line of the town of Millbury; from a point on said Grafton street, known as Rice square, through Millbury avenue to the line of the town of Millbury; from Washington square through Grafton, Franklin, Park, Portland, Southbridge, College and Clay streets to the line of the town of Auburn; from a point at the junction of said Southbridge street with Hammond street, through Hammond, Canterbury, Freeland, Cambridge

and Main streets to the line of the town of Leicester; from Washington square through Summer street to Lincoln square, thence on Lincoln street to Boylston street, through Boylston street to the line of the town of Shrewsbury; from said Lincoln square through Grove street to Chadwick square, thence through West Boylston street to the line of the town of West Boylston; from said Chadwick square through Grove street to Holden street, through Holden street to the line of the town of Holden; from Lincoln square through Main street as far as School street; said lines of railway in Worcester being shown in blue on the map of the city of Worcester dated 1906, and on file with this Board (said lines being those connecting with Holden, Fitchburg, Clinton, Shrewsbury and Marlborough, Grafton and Westborough, Millbury, Webster and Southbridge, Leicester and Spencer); to the extent of receiving, carrying and delivering such newspapers, baggage, express matter and freight described in the schedule on file with the petition as is usually transported by express companies, restricted to exclude besides explosives all articles and commodities the transportation of which may be hereafter prohibited by the Board.

This order is made subject to the following regulations and restrictions:

1. The company shall receive and deliver baggage, express and freight at suitable places or stations, and without discrimination or favor to any person or corporation.

2. All baggage, express and freight shall be transported in suitable cars to be provided with proper fenders, brakes and safety appliances, and to be run at no time at a higher rate of speed than that at which the company operates passenger cars.

3. The exercise of the authority herein granted shall in no way alter or abridge the duties and obligations of the company relative to the transportation of passengers, nor in any way interfere with the conduct of the passenger service.

4. The company shall be subject to such further regulations and restrictions as shall be lawfully made from time to time.

5. The authority herein granted is given upon the express condition that it shall not operate in any way to enhance the value of the assets of the company in the event of a purchase of the railway property by the city or state.

6. The requirement herein imposed upon said company to act as such common carrier is made without prejudice to any limitations that may hereafter be imposed by, or under authority of, the general court with respect to the extent to which, or the period during

which, or the manner in which, said company shall so act, and upon condition that no contractual relation is hereby created between said company and the Commonwealth by which said company receives or can claim any vested or permanent right, superior to the power of the Commonwealth to terminate the same, to act as a common carrier of newspapers, baggage, express matter and freight in said city of Worcester.

Attest:                      CHARLES E. MANN,  
DECEMBER 4, 1911.      [7743]                      Clerk.

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*Petition of the Boston Elevated Railway Company for authority to act as a common carrier of baggage and freight in the city of Boston.*

It appearing, after notice and hearing, held under the provisions of chapter 402 of the Acts of 1907, that the Boston Elevated Railway Company has heretofore filed with the city council of the city of Boston a petition for approval of the right to act as common carrier in said city over the lines of street railway operated by it as lessee of the West End Street Railway Company and of the Old Colony Street Railway Company (now the Bay State Street Railway Company); and the city council having acted adversely on said petition, and the Board being of opinion that the rights petitioned for ought to be granted, — it is

*Ordered,* That the Board hereby certify that public convenience and necessity require the granting of this petition, and therefore that the Boston Elevated Railway Company be required to act as a common carrier upon the lines of street railway in the city of Boston operated by it as lessee of the West End Street Railway Company and of the Old Colony Street Railway Company (now the Bay State Street Railway Company), to the extent of receiving, carrying and delivering such baggage and freight, described in the schedule on file with the petition, as is usually transported by express companies, restricted to exclude besides explosives all articles and commodities the transportation of which may be hereafter prohibited by the Board.

This order is made subject to the following regulations and restrictions:

1. The company shall receive and deliver baggage, express and freight at suitable places or stations, and without discrimination or favor to any person or corporation.

2. No authority is herein granted to the company to transport baggage, freight or express matter, except by or in electric cars, or to delegate or lease to any other persons or corporations the rights hereby granted.

3. All baggage, express and freight shall be transported in suitable cars, to be provided with proper fenders, brakes and safety appliances, and to be run at no time at a higher rate of speed than that at which the company operates passenger cars.

4. The exercise of the authority herein granted shall in no way alter or abridge the duties and obligations of the company relative to the transportation of passengers, nor in any way interfere with the conduct of the passenger service.

5. The facilities by which and the manner in which the business is conducted shall be subject to supervision and regulation by the Board from time to time as the public interests may require.

6. The authority herein granted is given upon the express condition that it shall not operate in any way to enhance the value of the assets of the company in the event of a purchase of the railway property by the city or state.

Attest:

CHARLES E. MANN,

*Clerk.*

DECEMBER 30, 1911.

[8559]

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*Petition of the Boston and Northern Street Railway Company for authority to act as a common carrier of baggage and freight in Billerica, Burlington, Dracut, Georgetown, Groveland, Haverhill, Lowell, Methuen, Middleton, Newbury, Newburyport, North Andover, North Reading, Rowley, Tewksbury, West Newbury and Wilmington.*

The petitioner has obtained authority to conduct the business of a common carrier of newspapers, baggage, express matter and freight in the following cities and towns:

Billerica, as granted by an order of the selectmen dated February 24, 1908;

Burlington, as granted by an order of the selectmen dated January 4, 1908;

Dracut, as granted by an order of the selectmen dated September 18, 1907;

Georgetown, as granted by an order of the selectmen dated April 30, 1908;

Groveland, as granted by an order of the selectmen dated April 15, 1908;  
Haverhill, as granted by an order of the board of aldermen dated February 6, 1908;  
Lowell, as granted by an order of the board of aldermen dated November 12, 1907;  
Methuen, as granted by an order of the selectmen dated October 21, 1907;  
Middleton, as granted by an order of the selectmen dated September 27, 1907;  
Newbury, as granted by an order of the selectmen dated April 24, 1908;  
Newburyport, as granted by an order of the board of aldermen dated June 1, 1908;  
North Andover, as granted by an order of the selectmen dated October 28, 1907;  
North Reading, as granted by an order of the selectmen dated September 7, 1907;  
Rowley, as granted by an order of the selectmen dated June 13, 1908;  
Tewksbury, as granted by an order of the selectmen dated November 2, 1907;  
West Newbury, as granted by an order of the selectmen dated April 2, 1908;  
Wilmington, as granted by an order of the selectmen dated June 24, 1909.

After notice and hearing, — it is

*Ordered*, That the Board hereby certify that public necessity and convenience require that the Boston and Northern Street Railway Company act as a common carrier upon the lines of railway named in the orders granting said authority, to the extent of receiving, carrying and delivering such baggage and freight, described in the schedule on file with the petition, as is usually transported by express companies, restricted to exclude besides explosives all articles and commodities the transportation of which may be hereafter prohibited by the Board, upon the understanding that the facilities by which and the manner in which the business is conducted shall be subject to supervision and regulation by the Board from time to time as the public interests may require.

Attest:                      CHARLES E. MANN,  
MARCH 2, 1911.      [8172]                      Clerk.

*Petition of the Boston and Northern Street Railway Company, now the Bay State Street Railway Company, for modification of order of the Board approving certain grants to act as a common carrier of newspapers, baggage, express matter and freight.*

The Boston and Northern Street Railway Company, now the Bay State Street Railway Company, has heretofore been granted authority to conduct the business of a common carrier of newspapers, baggage, express matter and freight in the city of Lowell and in the towns of Dracut, Methuen, Middleton and North Andover, and said grants have been duly approved by the Board by its order of March 2, 1911.

It now appearing that public necessity and convenience require that the Bay State Street Railway Company act as a common carrier upon the lines of railway in said city and towns to the extent of receiving, carrying and delivering coal, the order of the Board of March 2, 1911, is so far modified as to permit the carriage of coal in car load lots and less than car load lots, and the schedule on file with the petition of said company is amended by the insertion of the word "coal" in said schedule.

This authority is granted subject to any and all regulations and restrictions now effective in said grants or any of them and without prejudice to any future action of the aldermen of said city and the selectmen of said towns, respectively, with respect to additional regulations and restrictions that may be made under the provisions of Acts of 1907, chapter 402.

Attest: CHARLES E. MANN,

SEPTEMBER 13, 1911. [8172]

Clerk.

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*Petition of the Boston and Northern Street Railway Company (formerly the Old Colony Street Railway Company) and the Union Street Railway Company for authority to act as common carriers of baggage and freight in New Bedford.*

The Old Colony Street Railway Company (now the Boston and Northern Street Railway Company) and the Union Street Railway Company have obtained from the board of aldermen of the city of New Bedford, by an order adopted June 29, 1911, authority

to conduct the business of common carriers of baggage and freight within that city.

After notice and hearing, — it is

*Ordered*, That the Board hereby certify that public necessity and convenience require that the Boston and Northern Street Railway Company and the Union Street Railway Company act as common carriers upon the lines of railway named in the order of the board of aldermen granting said authority, to the extent of receiving, carrying and delivering such baggage and freight, described in the schedule on file with the petition, as is usually transported by express companies, restricted to exclude besides explosives all articles and commodities the transportation of which may be hereafter prohibited by the Board, upon the understanding that the facilities by which and the manner in which the business is conducted shall be subject to supervision and regulation by the Board from time to time as the public interests may require.

Attest: CHARLES E. MANN,  
JULY 27, 1911. [8403] \_\_\_\_\_ Clerk.

By similar orders, the Board has, during the year, also approved local grants giving common carrier rights to street railway companies, as follows:

*Bay State Street Railway Company.*

Hyde Park, December 29, 1911 — Common carrier rights, established under an order of the selectmen dated December 22, 1911. [8627]

*Boston and Northern Street Railway Company.*

Boston (Neponset district), July 27, 1911 — Common carrier rights, established under an order of the city council dated June 26, 1911, granted to the Old Colony Street Railway Company. [8404]

*Haverhill and Plaistow Street Railway Company.*

Haverhill, June 22, 1911 — Common carrier rights, established under an order of the municipal council dated June 1, 1911. [8332]

*Haverhill and Southern New Hampshire Street Railway Company.*

Haverhill, June 22, 1911 — Common carrier rights, established under an order of the municipal council dated June 1, 1911. [8331]



FENDERS AND WHEELGUARDS.

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*Petition of the American Car Sprinkler Company for exemption from use of fender and for approval of type of wheelguard.*

The American Car Sprinkler Company, of Worcester, operates electric sprinkler cars in the cities of Worcester, Lynn, Lowell, Lawrence, Springfield, Holyoke, Brockton, Taunton, Fall River and New Bedford and in the town of Revere, under contracts with said cities and town and the Worcester Consolidated, Boston and Northern, Springfield, Holyoke, Taunton and Pawtucket, East Taunton, Norton and Taunton, Old Colony and Union Street railway companies, operating therein.

It appears that the cars of said company are operated at a moderate rate of speed, and that owing to their construction it is impracticable to equip them with fenders.

After consideration, — it is

*Ordered*, That the American Car Sprinkler Company be hereby exempted from the requirement of the Board in its order of September 15, 1910, that all cars operated on surface lines be equipped with fenders.

And it is further

*Ordered*, That the approval of the Board be hereby given to the use on cars operated by the American Car Sprinkler Company in the cities and town above mentioned of wheelguards made by the Consolidated Car Fender Company of Providence, Rhode Island, as described in its petition and shown on a photograph submitted therewith, when attached to a car at a height, as nearly as practicable, of four inches above the rail.

The exemption and approval hereby given may be modified or revoked at any time in the discretion of the Board.

MARCH 14, 1911.      Attest:

CHARLES E. MANN,  
Clerk.

*Petition of the Hamlin Street Sprinkler Company for approval of type of fender and wheelguard.*

After consideration, — it is

*Ordered*, That the approval of the Board be hereby given, under the provisions of section 90 of part III of chapter 463, Acts of 1906, to the use on cars operated by the Hamlin Street Sprinkler Company in the city of Salem, under a contract with said city and the Boston and Northern Street Railway Company, of a fender known as the "Pfingst" fender, and of a wheelguard, as described in its petition and shown on a photograph submitted therewith, when attached to a car in accordance with section 2 of the circular letter of the Board issued under date of September 15, 1910, as follows:

In the opinion of the Board the rigid part of all fenders should be, as near as practicable, twelve inches above the rail; and the height of wheelguards should be, as near as practicable, four inches above the rail.

The approval hereby given may be modified or revoked at any time in the discretion of the Board.

Attest: CHARLES E. MANN,

APRIL 13, 1911.

[8035]

Clerk.

*Petition of the Amesbury and Hampton Street Railway Company for approval of type of fender and wheelguard.*

After consideration, — it is

*Ordered*, That the approval of the Board be hereby given, under the provisions of section 90 of part III of chapter 463, Acts of 1906, to the use on cars of the Amesbury and Hampton Street Railway Company of a fender known as the "Pfingst" fender, and of a wheelguard, as described in the petition and shown on photographs submitted therewith, when attached to a car in accordance with section 2 of the circular letter of the Board issued under date of September 15, 1910, as follows:

In the opinion of the Board the rigid part of all fenders should be, as near as practicable, twelve inches above the rail; and the height of wheelguards should be, as near as practicable, four inches above the rail.

The approval hereby given may be modified or revoked at any time in the discretion of the Board.

Attest: CHARLES E. MANN,

JANUARY 21, 1911.

[8035]

Clerk.

By similar orders the Board has, during the year, approved various types of wheelguards for use on cars of the following street railway companies, and types of fenders as follows:

- Athol and Orange, March 13, 1911 — Sterling Folding and Wason fenders.
- Berkshire, April 8, 1911 — Pfinger fender and Providence rigid fender.
- Blue Hill, February 17, 1911 — Pfinger fender.
- Boston Elevated, March 21, 1911 — Pfinger and Libby fenders; on cars of slow speed city lines, Caliga, Parmenter and H. B. wheelguards.
- Boston and Northern, February 16, 1911 — Pfinger, Libby, Eclipse, Parmenter and Boston and Northern spring cushion fenders.
- Boston and Worcester, January 21, 1911 — Pfinger fender.
- Bristol and Norfolk, April 25, 1911 — Pfinger fender.
- Brockton and Plymouth, February 17, 1911 — Pfinger fender.
- Citizens Electric, February 17, 1911 — Pfinger fender.
- Concord, Maynard and Hudson, February 17, 1911 — Pfinger fender.
- Connecticut Valley, January 21, 1911 — Pfinger fender.
- Conway Electric, March 15, 1911 — Pfinger fender.
- Dedham and Franklin, January 21, 1911 — Pfinger fender.
- East Taunton, March 8, 1911 — Pfinger fender.
- Fitchburg and Leominster, January 21, 1911 — Pfinger fender.
- Gardner, Westminster and Fitchburg, March 9, 1911 — Pfinger fender.
- Haverhill and Amesbury, January 21, 1911 — Pfinger fender.
- Haverhill and Plaistow, January 21, 1911 — Pfinger fender.
- Haverhill and Southern New Hampshire, January 21, 1911 — Pfinger fender.
- Holyoke, March 8, 1911 — Pfinger fender.
- Interstate Consolidated, March 11, 1911, April 18, 1911 — Providence fender, Pfinger fender.
- Lawrence and Methuen, January 21, 1911 — Pfinger fender.
- Lexington and Boston, February 1, 1911 — Pfinger and Libby fenders.
- Linwood, January 21, 1911 — Providence fender.
- Lowell, Acton and Maynard, January 21, 1911 — Pfinger fender.
- Lowell and Fitchburg, January 21, 1911 — Pfinger fender.
- Lowell and Pelham, January 21, 1911 — Pfinger fender.
- Marlborough and Westborough, March 8, 1911 — Pfinger fender.
- Medfield and Medway, January 21, 1911 — Pfinger fender.
- Middlesex and Boston, February 1, 1911 — Pfinger and Libby fenders.
- Milford, Attleborough and Woonsocket, March 8, 1911 — Pfinger fender.
- Milford and Uxbridge, March 20, 1911 — Pfinger and Milford fenders.
- Nahant and Lynn, January 21, 1911 — Pfinger fender.
- New Bedford and Onset, March 9, 1911 — Pfinger fender.
- Norfolk and Bristol, March 8, 1911 — Pfinger fender.
- Northampton, March 8, 1911 — Pfinger fender.

Norton and Taunton, March 9, 1911 — Pfingst fender.

Norwood, Canton and Sharon, February 17, 1911 — Pfingst fender.

Oak Bluffs, January 21, 1911 — Pfingst fender.

Old Colony, February 16, 1911 — Pfingst, Eclipse and Parmenter fenders.

Plymouth and Sandwich, January 21, 1911 — Pfingst fender.

Point Shirley, January 21, 1911 — Pfingst fender.

Providence and Fall River, February 17, 1911 — Pfingst fender.

Shelburne Falls and Colrain, July 21, 1911 — Pfingst fender and Providence rigid fender.

Springfield, April 8, 1911 — Pfingst fender and Providence rigid fender; on cars of slow speed city lines, Hunter fender and wheelguard.

Taunton and Pawtucket, February 16, 1911 — Pfingst fender.

Templeton, June 6, 1911 — Pfingst fender and Providence rigid fender.

Union, April 4, 1911 — Pfingst fender and Providence rigid fender; on cars of slow speed city lines, Reeves fender, and Parmenter and Providence wheelguards.

Ware and Brookfield, January 21, 1911 — Pfingst fender.

Warren, Brookfield and Spencer, February 17, 1911 — Pfingst fender.

Worcester Consolidated, March 8, 1911 — Pfingst fender.

Worcester and Blackstone Valley, March 8, 1911 — Pfingst fender.

Worcester and Holden, March 8, 1911 — Pfingst fender. [8035]

HEATING — CARS.

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*Petition of the Boston and Maine Railroad for exemption from the law as to steam heating.*

After consideration, — it is

*Ordered*, That the Boston and Maine Railroad be hereby exempted, until the first day of October, 1912, from the law requiring passenger cars to be heated by steam from the locomotive, in respect to cars on mixed trains upon the Easthampton branch of the Connecticut and Passumpsic division, the Acton branch of the Worcester, Nashua and Portland division and the Ashburnham branch of the Fitchburg division of its railroad, as shown in schedules on file with the petition, in which freight cars are placed between the locomotive and passenger cars, said passenger cars to be heated by the Baker heater heretofore approved by the Board.

Attest: CHARLES E. MANN,  
OCTOBER 20, 1911. [8516] *Clerk.*

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*Petition of the Central New England Railway Company for exemption from the law as to steam heating.*

After consideration, — it is

*Ordered*, That the Central New England Railway Company be hereby exempted, until the first day of October, 1912, from the law requiring passenger cars to be heated by steam from the locomotive, in respect to passenger and baggage cars on mixed train No. 600, which reaches Springfield at 11.52 A.M., and mixed trains No. 601 and No. 603, which leave Springfield at 7.40 A.M. and 3.08 P.M., respectively, said cars to be heated by either the Baker or the Johnson heater heretofore approved by the Board.

Attest: ALLAN BROOKS,  
AUGUST 30, 1911. [8452] *Assistant Clerk.*

*Petition of the Lowell and Fitchburg Street Railway Company for authority to install hot water heaters for experimental purposes.*

After consideration, — it is

*Ordered*, That the Lowell and Fitchburg Street Railway Company be hereby authorized to install in cars operated by it a hot water heater, known as the Cooper heater, for the purpose of experimenting with this method of heating cars, this authority to continue until revoked.

Attest: CHARLES E. MANN,  
Clerk.

DECEMBER 27, 1911. [8546]

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*Petition of the New York, New Haven and Hartford Railroad Company for exemption from the law as to steam heating.*

After consideration, — it is

*Ordered*, That the New York, New Haven and Hartford Railroad Company be hereby exempted until the first day of October, 1912, from the law requiring passenger cars to be heated by steam from the locomotive, in respect to cars on certain mixed trains upon the Shore Line, Providence, Old Colony and Western divisions of its railroad, specified in the petition, in which freight cars are placed between the locomotive and passenger cars, said passenger cars to be heated by the Baker or the Johnson heater heretofore approved by the Board.

Attest: CHARLES E. MANN,  
Clerk.

SEPTEMBER 7, 1911. [8463]

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*Petition of the New York, New Haven and Hartford Railroad Company for modification of order for exemption from the law as to steam heating.*

After consideration, — it is

*Ordered*, That the order of the Board dated September 7, 1911, exempting until October 1, 1912, the New York, New Haven and Hartford Railroad Company from the law requiring passenger cars to be heated by steam from the locomotive in respect to cars on certain mixed trains upon the Shore Line, Providence, Old Colony and Western divisions of its railroad, be hereby modified to cover

the trains on the Old Colony division shown in the amended petition of said company filed in this office on December 9, 1911.

Attest:                    CHARLES E. MANN,  
DECEMBER 12, 1911.    [8463]                    Clerk.

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*Petition of the Boston and Maine Railroad for approval of certain safety appliances for use on the Baker heater.*

After consideration, — it is

*Ordered*, That the approval of the Board be hereby given to the use of certain safety appliances on the Baker heaters heretofore approved, said safety appliances being shown upon a plan on file with the petition.

Attest:                    CHARLES E. MANN,  
AUGUST 17, 1911.    [8434]                    Clerk.

JOINT USE OF TRACKS.

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*Petition of the General Electric Company for modification of order relative to transportation of freight on highways in Pittsfield.*

It appearing, after notice and hearing, that on October 5, 1909, this Board issued an order on the petition of the General Electric Company for consent to the construction and maintenance of a railroad for private use in the transportation of freight across highways in Pittsfield and for approval of a joint use of tracks with the Pittsfield Electric Street Railway Company in that city, and that a portion of said order was issued under the provisions of chapter 341 of the Acts of 1909, authorizing the operation of cars and engines over the tracks of the Pittsfield Electric Street Railway Company on Woodlawn avenue in Pittsfield, with the consent of said company and to such extent and under such rules and regulations as this Board deemed to be consistent with the public safety, the first of these rules and regulations reading as follows: "1. Cars shall be run on the tracks between the hours of sunrise and sunset only"; and the petitioner now desiring that authority be given to run its cars at any hour of the day or night,—it is

*Ordered*, That so much of said order of October 5, 1909, as provides that cars shall be run on the tracks of the Pittsfield Electric street railway, now a portion of the Berkshire street railway, between the hours of sunrise and sunset only, be hereby rescinded.

Attest: CHARLES E. MANN,  
APRIL 6, 1911. [7313] Clerk.

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*Petition of the Old Colony Street Railway Company for certificate relative to the operation of its cars over the private railroad of the Fore River Shipbuilding Company in the city of Quincy.*

After consideration,—it is

*Ordered*, That the approval of the Board, under the provisions of chapter 70, Acts of 1909, be given to the amended rules and



regulations to govern the operation of cars by the Old Colony Street Railway Company in Quincy, as set out in an agreement between said company and the Fore River Shipbuilding Company dated December 7, 1908, and amended February 23, 1911, copies of which, with schedule, are on file in this office, upon the understanding that should a change in the schedule be desired, amended rules and regulations and a new schedule shall be filed with the Board for its approval.

Attest:                    CHARLES E. MANN,  
FEBRUARY 27, 1911.    [8191]                    Clerk.

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*Petition of the Bay State Street Railway Company for certificate relative to the operation of its cars over the private railroad of the Fore River Shipbuilding Company in the city of Quincy.*

After consideration, — it is

*Ordered*, That the approval of the Board, under the provisions of chapter 70, Acts of 1909, be given to the amended rules and regulations, dated October 4, 1911, to govern the operation of cars by the Bay State Street Railway Company in Quincy, as set out in an agreement between the Old Colony Street Railway Company (now the Bay State Street Railway Company) and the Fore River Shipbuilding Company dated December 7, 1908, copies of which, with schedule, are on file in this office, upon the understanding that should a change in the schedule be desired, amended rules and regulations and a new schedule shall be filed with the Board for its approval.

Attest:                    CHARLES E. MANN,  
OCTOBER 6, 1911.    [8503]                    Clerk.

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*Petition of the Plymouth and Sandwich Street Railway Company for approval of use of its tracks in Plymouth by the Brockton and Plymouth Street Railway Company.*

After notice and hearing and full consideration, — it is

*Ordered*, That the Board hereby certify that the joint operation of cars over certain tracks of the Plymouth and Sandwich street railway in the town of Plymouth, to the extent and under the rules and regulations provided in an agreement executed by the Plymouth and Sandwich and the Brockton and Plymouth street rail-

way companies under date of August 15, 1911, a copy of which agreement is on file in this office, is consistent with the public safety.

Attest: CHARLES E. MANN,  
OCTOBER 3, 1911. [8477] Clerk.

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*Petition of the Ware and Brookfield Street Railway Company for approval of use of its tracks by the Warren, Brookfield and Spencer Street Railway Company in West Brookfield.*

After notice and hearing and full consideration, — it is

*Ordered*, That the Board hereby certify that the joint operation of cars over certain tracks of the Ware and Brookfield street railway at Pond Hill in the town of West Brookfield, to the extent and under the rules and regulations provided in an agreement executed by the Ware and Brookfield Street Railway Company and the Warren, Brookfield and Spencer Street Railway Company under date of October 21, 1911, a copy of which agreement is on file in this office, is consistent with the public safety.

Attest: CHARLES E. MANN,  
DECEMBER 28, 1911. [8574] Clerk.

RAILROAD LOCATIONS.

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*Petition of the Boston and Albany Railroad Company for approval of change of location of its railroad in the towns of Middlefield and Becket.*

After public notice and hearing, — it is

*Ordered*, That the approval of the Board be hereby given, under chapter 463 of the Acts of 1906, to a change in the location of the Boston and Albany railroad in the towns of Middlefield and Becket, between bridges 136 and 141 in its present location, for the purpose of improving the alignment of its railroad, as shown on a plan filed with the petition and signed by F. B. Freeman, chief engineer.

Attest: CHARLES E. MANN,

JUNE 14, 1911.

[S310]

Clerk.

*Petition of the Hampden Railroad Corporation that the Board fix the route of its railroad in the city of Chicopee.*

H. W. ELY for petition.

LUTHER WHITE for City of Chicopee.

It appearing, after notice and hearing, that the directors of The Hampden Railroad Corporation, a corporation in process of formation, has received from this Board a certificate that public convenience and necessity require that a railroad be constructed as proposed in the articles of association of said corporation; that the petitioners have applied, under the provisions of law, for certificates fixing the route of said railroad in the cities and towns named in the articles of association; that they have been and are unable to agree with the aldermen of the city of Chicopee upon a route for said railroad and have not received from them a certificate fixing said route, — it is

*Ordered*, That the location and route for the railroad of The Hampden Railroad Corporation in the city of Chicopee, as the same is indicated upon a map on file in this office, be as is here described :

Beginning at a point in the center line of the Chicopee Falls branch of the Boston and Maine railroad, said point being about 120 feet easterly from the easterly line of Grape street produced and running thence north  $89^{\circ} 57'$  east 2,405.6 feet to station  $24 + 05.6$ , thence by a  $4^{\circ}$  curve to the left to station  $39 + 33.1$ , thence north  $28^{\circ} 51'$  east to station  $55 + 94.00$ , thence by a  $4^{\circ}$  curve to the right to station  $73 + 06.5$ , which equals station  $75 + 33.12$  on continuation of this line, thence south  $82^{\circ} 39'$  east to station  $130 + 65.65$ , thence by a  $2^{\circ}$  curve to the right to station  $143 + 93.98$ , thence south  $56^{\circ} 05'$  east to station  $162 + 35.13$ , thence by a  $1^{\circ}$  curve to the left to station  $167 + 73.13$ , thence south  $61^{\circ} 30'$  east to station  $203 + 04.08$ , thence by a  $2^{\circ}$  curve to the left to station  $212 + 04.08$ , said station equals station  $111 + 20$  on line from Springfield, Massachusetts, to Hastings Crossing, Palmer, Massachusetts; also beginning on line between Springfield and Chicopee; thence continuing the same course north  $44^{\circ} 36'$  E, crossing the Chicopee river to station  $94 + 87.41$ ; thence by a  $4^{\circ}$  curve to the right to station  $108 + 84.91$ ; thence south  $79^{\circ} 30'$  east to station  $164 + 50$  which equals station  $338 + 32$  on continuation of this line; said station being on line between city of Chicopee and town of Ludlow.

The above described lines are the center line of location.

The right of way is shown by the lines 100 feet distant from the center line upon each side and parallel with it.

Attest:                      CHARLES E. MANN,  
JUNE 2, 1911.            [S175]                      Clerk.

*Petition of The Hampden Railroad Corporation for certificate, under the provisions of section 71, part II, chapter 463, Acts of 1906, preliminary to construction.*

By order of the Board of Railroad Commissioners I, the undersigned Clerk of said Board, under the provisions of section 71 of part II, chapter 463 of the Acts of 1906, hereby certify that The Hampden Railroad Corporation has submitted to the Board a sworn estimate by its chief engineer of the total cost of constructing its railroad, other than branches, located in the counties of Hampden and Hampshire, and that said estimate has been approved by the Board. I further certify that it has been made to appear to the satisfaction of the Board that an amount of capital stock of said corporation, equal to at least fifty per cent of such estimated cost, has been subscribed by responsible parties, without any condition which invalidates the subscription, and that twenty per cent of the par value of each share has been actually paid in. And I also certify that the Board has ascertained that the authority and

consent required by section 82 of part II, chapter 463 of the Acts of 1906, for the construction of said railroad across the highways and other ways within the counties in which said road is located, have been obtained.

CHARLES E. MANN,

AUGUST 17, 1911.

[8438]

Clerk.

*Petition of directors of the Southern New England Railroad Corporation that the Board fix the route of its railroad in the town of Blackstone.*

It appearing, after notice and hearing, that the directors of the Southern New England Railroad Corporation, a corporation in process of formation, has received from this Board a certificate that public convenience and necessity require that a railroad be constructed as proposed in the articles of association of said corporation; that the petitioners have applied, under the provisions of law, for certificates fixing the route of said railroad in the towns named in the articles of association; that they have been and are unable to agree with the selectmen of the town of Blackstone upon a route for said railroad, and have not received from them a certificate fixing said route,—it is

*Ordered,* That the location and route for the railroad of the Southern New England Railroad Corporation in the town of Blackstone, as the same is indicated upon a map on file in this office, be as is here described:

Beginning at a point on the dividing line between the towns of Uxbridge and Blackstone, where said dividing line is intersected by the centre line of said route, said point being about one hundred and five (105) feet southerly of the centre line of the double track of the New York, New Haven and Hartford railroad (Midland division), said point also being four hundred and twelve (412) feet south of a stone bound set on said dividing line; thence on a curve to the right of  $2^{\circ} 30'$  (radius 2,292 feet) one hundred and thirty-three and three-tenths (133.3) feet; thence curving to the right on a Searles spiral of five 40-foot chords two hundred (200) feet; thence S.  $52^{\circ} 59'$  E. thirteen hundred and forty and eight-tenths (1,340.8) feet; thence on a curve to the left of  $4^{\circ}$  (radius 1,432.7 feet) six hundred and ninety-eight and seven-tenths (698.7) feet, said curve being flattened at each end with a Searles spiral of eight 37-foot chords; thence S.  $69^{\circ} 15'$  E. four hundred and sixty-two and eight-tenths (462.8) feet; thence on a curve to the right of  $30^{\circ}$  (radius 11,459.2 feet) twenty-seven hundred and ninety-three and nine-tenths (2,793.9) feet, crossing Central and Summit streets;

thence S.  $55^{\circ} 17'$  E. five hundred and seventy-six and eight-tenths (576.8) feet; thence on a curve to the left of  $6^{\circ}$  (radius 955.4 feet) seventeen hundred and sixty-six (1,766) feet, crossing the Blackstone river, said curve being flattened at each end with a Searles spiral of eleven 33-foot chords; thence N.  $40^{\circ} 19'$  E. three hundred and seventy-one and five-tenths feet (371.5), crossing the Worcester division and the Midland division of the New York, New Haven and Hartford railroad; thence by a curve to the right of  $6^{\circ}$  (radius 955.4 feet) eighteen hundred and sixty-one and six-tenths (1,861.6) feet, said curve being flattened at each end with a Searles spiral of eleven 33-foot chords, crossing a public way; thence S.  $49^{\circ} 33'$  E. seventy-eight and four-tenths (78.4) feet; thence by a curve to the left of  $6^{\circ}$  (radius 955.4 feet) eighteen hundred and twenty-five and four-tenths (1,825.4) feet, said curve being flattened at each end with a Searles spiral of eleven 33-foot chords; thence N.  $42^{\circ} 29'$  E. seventy-nine and six-tenths (79.6) feet; thence by a curve to the right of  $3^{\circ}$  (radius 1,910.1 feet) thirteen hundred and thirty-four and seven-tenths (1,334.7) feet, said curve being flattened at each end with a Searles spiral of six 39-foot chords; thence N.  $75^{\circ} 29'$  E. nine hundred and sixty-eight and eight-tenths (968.8) feet; thence by a curve to the right of  $3^{\circ}$  (radius 1,910.1 feet) sixteen hundred and twenty and eight-tenths (1,620.8) feet, said curve being flattened at each end with a Searles spiral of six 39-foot chords, crossing a public way; thence S.  $62^{\circ} 56'$  E. fifteen hundred and fifty-one and seven-tenths (1,551.7) feet; thence by a curve to the right of  $3^{\circ} 30'$  (radius 1,637.3 feet) eight hundred and fifty-three and three-tenths (853.3) feet, said curve being flattened at each end with a Searles spiral of seven 38-foot chords, crossing a public way called Blackstone street; thence S.  $42^{\circ} 21'$  E. five hundred and sixty-two and six-tenths (562.6) feet; thence by a curve to the left of  $3^{\circ}$  (radius 1,910.1 feet) ten hundred and seventy and eight-tenths (1,070.8) feet, said curve being flattened at each end with a Searles spiral of six 39-foot chords, crossing a public way; thence S.  $67^{\circ} 26'$  E. sixteen hundred and four and four-tenths (1,604.4) feet, crossing the New York, New Haven and Hartford railroad, Midland division; thence curving to the left by a Searles spiral of five 40-foot chords two hundred (200) feet; thence curving to the left on a  $2^{\circ} 30'$  curve (radius 2,292 feet) seventeen and seven-tenths (17.7) feet to a point on the boundary line between the states of Massachusetts and Rhode Island, said point being five hundred and fifty-four and nine-tenths (554.9) feet westerly from a stone bound set on said boundary line on the westerly side of Summer street.

The line described is the centre line of said route and is shown upon the map by a red line.

Attest: CHARLES E. MANN,

JULY 10, 1911. [S306]

Clerk.

*Petition of directors of the Southern New England Railroad Corporation that the Board fix the route of its railroad in the town of Uxbridge.*

It appearing, after notice and hearing, that the directors of the Southern New England Railroad Corporation, a corporation in process of formation, has received from this Board a certificate that public convenience and necessity require that a railroad be constructed as proposed in the articles of association of said corporation; that the petitioners have applied, under the provisions of law, for certificates fixing the route of said railroad in the towns named in the articles of association; that they have been and are unable to agree with the selectmen of the town of Uxbridge upon a route for said railroad and have not received from them a certificate fixing said route,—it is

*Ordered,* That the location and route for the railroad of the Southern New England Railroad Corporation in the town of Uxbridge, as the same is indicated on a map on file in this office, be as is here described:

Beginning at a point in the dividing line between the towns of Douglas and Uxbridge where said dividing line is intersected by the centre line of said route, said point being about nine hundred and seventy-two (972) feet southerly from a stone monument set on said dividing line, thence S.  $77^{\circ} 11'$  E. ten hundred and sixteen and three-tenths (1,016.3) feet; thence by a curve to the right of  $3^{\circ}$  (radius 1,910.1 feet) seventeen hundred and five and eight-tenths (1,705.8) feet, said curve being flattened at each end by a Searles spiral of six 39-foot chords; thence S.  $33^{\circ} 3'$  E. thirty-two hundred and forty-five and three-tenths (3,245.3) feet, crossing a public way; thence by a curve to the left of  $5^{\circ}$  (radius 1,146.3 feet) eighteen hundred and ninety-five and three-tenths (1,895.3) feet, said curve being flattened at each end by a Searles spiral of nine 35-foot chords; thence N.  $68^{\circ} 41'$  E. twenty-four hundred and eleven and five-tenths (2,411.5) feet; thence by a curve to the right of  $3^{\circ}$  (radius 1,910.1 feet) twelve hundred and eighty-two and four-tenths (1,282.4) feet, said curve being flattened at each end by a Searles spiral of six 39-foot chords; thence S.  $79^{\circ} 53'$  E. nine hundred and thirty-one and eight-tenths (931.8) feet; thence by a curve to the right of  $1^{\circ}$  (radius 5,729.7 feet) twelve hundred and six and seven-tenths (1,206.7) feet; thence S.  $67^{\circ} 49'$  E. fifteen hundred and ninety-seven and three-tenths (1,597.3) feet, crossing a public way; thence by a curve to the right of  $3^{\circ}$  (radius 1,910.1 feet) fifteen hundred and nineteen and one-tenth (1,519.1) feet, said curve being flattened at each end by a Searles spiral of six 39-foot chords; thence S.  $29^{\circ} 17'$

E. six hundred and ninety-six and nine-tenths (696.9) feet; thence by a curve to the left of  $2^{\circ}$  (radius 2,864.9 feet) seven hundred and seven and seven-tenths (707.7) feet, said curve being flattened at each end by a Searles spiral of four 42-foot chords; thence S.  $40^{\circ} 3'$  E. eleven hundred and sixty-two and three-tenths (1,162.3) feet, crossing a public way; thence by a curve to the left of  $1^{\circ}$  (radius 5,729.7 feet) eleven hundred and seventy (1,170) feet; thence S.  $51^{\circ} 45'$  E. nine hundred and fifty (950) feet; thence by a curve to the right of  $3^{\circ}$  (radius 1,910.1 feet) eight hundred and forty-six and nine-tenths (846.9) feet, said curve being flattened at each end with a Searles spiral of six 39-foot chords; thence S.  $33^{\circ} 23'$  E. three hundred and seventy and one-tenth (370.1) feet; thence by a curve to the left of  $6^{\circ}$  (radius 955.4 feet) ten hundred and fifty-three and eight-tenths (1,053.8) feet, said curve being flattened at each end by a Searles spiral of eleven 33-foot chords, crossing a public way; thence S.  $75^{\circ} 3'$  E. seven hundred and fifty-two and five-tenths (752.5) feet; thence by a curve to the left of  $4^{\circ}$  (radius 1,432.7) feet fourteen hundred and forty-three and seven-tenths (1,443.7) feet, said curve being flattened at each end with a Searles spiral of eight 37-foot chords; thence N.  $58^{\circ} 53'$  E. fourteen hundred and seventy-eight and seven-tenths (1,478.7) feet, crossing a public way; thence by a curve to the right of  $2^{\circ} 30'$  (radius 2,292 feet), flattened on the westerly end by a Searles spiral of five 40-foot chords, twenty-five hundred and ninety-two (2,592) feet, to a point on the dividing line between the towns of Uxbridge and Blackstone about four hundred and twelve (412) feet southerly from a stone monument set on said dividing line.

The line described is the centre line of said route and is shown upon said map by a red line.

	Attest:	CHARLES E. MANN,
JULY 10, 1911.	[S305]	<i>Clerk.</i>



ELECTRIC RAILROAD LOCATIONS.

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*Petition of the Boston and Providence Interurban Electric Railroad Company for permission to apply to the selectmen of Milton to fix a route in that town.*

After notice and hearing and further consideration,—it is

*Ordered*, That the Board, under the provisions of section 7 of chapter 516 of the Acts of 1906, as amended by chapter 450 of the Acts of 1908, hereby authorize the directors of said Boston and Providence Interurban Electric Railroad Company to apply to the board of selectmen of the town of Milton, a town not named in the agreement of association of said company, to fix a route of said railroad passing through said town.

Attest: CHARLES E. MANN,

NOVEMBER 28, 1911.

[S283]

Clerk.

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*Petitions of directors of the Boston and Providence Interurban Electric Railroad Company that the Board fix the route of its railroad in the city of Boston and towns of Hyde Park, Dedham, Westwood, Canton, Norwood, Sharon, Foxborough, Mansfield, North Attleborough and Attleborough.*

It appearing, after notice to the directors and board of aldermen of Boston and selectmen of all the towns through which the route of the railroad is now fixed, and after public notice and hearing, that the directors of the Boston and Providence Interurban Electric Railroad Company, a corporation in process of formation, have heretofore received from this Board a certificate, dated the nineteenth day of November, 1907, that public convenience and necessity require that the railroad shall be constructed as proposed in the agreement of association of said corporation, which agreement of association has now been amended by decrees of this Board dated the twenty-fourth day of June, 1910, and the twenty-eighth day of November, 1911, whereby the route of said railroad shall now pass through the towns of North Attleborough and Milton, in addition

to the city and towns enumerated in said agreement of association, and the route of the said railroad in the town of Seekonk is abandoned; that the said petitioners heretofore applied to the board of aldermen of the city of Boston and the selectmen of all other towns named in its agreement of association, as thus amended, pursuant to the provisions of law, to fix the route of said railroad in said city of Boston and in the said towns so named in the agreement of association as thus amended, and the board of aldermen of said city of Boston and the selectmen of the said towns have failed to make any order approving such route except in the town of Milton, in which town the selectmen, by order dated the twenty-sixth day of December, 1911, agreed to the route applied for by these directors and issued a certificate setting forth the route as fixed by them, and the said company has therefore applied in the manner provided by law to this Board to fix the said route of its said railroad in said city of Boston and in all of the said towns named in the agreement of association as so amended except in the town of Milton, — it is now

*Ordered*, That the route of the railroad of the Boston and Providence Interurban Electric Railroad Company in the city of Boston and towns of Hyde Park, Dedham, Westwood, Canton, Norwood, Sharon, Foxborough, Mansfield, North Attleborough and Attleborough, be as is hereafter described and as is more fully shown on a set of maps on file in this office entitled "Boston and Providence Interurban Electric Railroad Company — Route of the Railroad as Fixed by the Decree of the Board of Railroad Commissioners Dated December 30, 1911, From Forest Hills, Boston, to the Rhode Island State Line, Passing Through the City of Boston and the Towns of Hyde Park, Milton, Dedham, Westwood, Norwood, Canton, Sharon, Foxborough, Mansfield, North Attleborough and Attleborough. F. J. Wood, Chief Engineer", namely:

Commencing at a point midway between the two main tracks at the southerly end of the elevated structure of the Boston Elevated Railway Company on Washington street, near the corner of Walk Hill street, in that part of Boston called Forest Hills; thence by a curve to the left of radius 500', 72.18 feet, crossing Walk Hill street; thence by a curve to the right of radius 500', 94.54 feet; thence S. 27° 13' 38" W. measured from the true meridian passing through the Massachusetts State House, 844.00 feet; thence by a 0° 54' curve to the left, 1,490.74 feet; thence S. 13° 48' 38" W. 123.01 feet; thence by a 4° curve to the left, 770.20 feet; thence S. 16° 59' 52" E. 1,116.46 feet, crossing Hyde Park avenue, the tracks of the Boston Elevated Railway Com-

pany, Stony brook and the private streets called Wyvern, Hunter and Florence; thence by a 2° curve to the right, 809.16 feet, crossing Neponset avenue; thence S. 0° 48' 52" E. 2,735.79 feet, crossing Mt. Hope, Canterbury and Ashland streets and the tracks of the Boston Elevated Railway Company, Stony brook twice, the Metropolitan high level sewer and the private streets called Bradstreet avenue, Wiedeman and Brook streets; thence by a 1° curve to the right, 1,176.67 feet, crossing Wilmot street, Stony brook, the Metropolitan high level sewer and the boundary line between Boston in Suffolk county and Hyde Park in Norfolk county; thence S. 10° 57' 08" W. 402.13 feet, crossing the Metropolitan high level sewer; thence by a 3° curve to the left, 1,011.11 feet; thence S. 19° 22' 52" E. 2,506.77 feet; thence by a 3° curve to the right 980.56 feet, crossing East River street and the track of the Bay State Street Railway Company; thence S. 10° 02' 08" W. about 530.00 feet to a point on the boundary line between the towns of Hyde Park and Milton, said point being in the middle of the Neponset river, and opposite the estate in Hyde Park between Riverside terrace and said Neponset river, now or formerly of Ella E. Gross;

Thence continuing in the same straight line a distance of about 70 feet along the route as fixed by the selectmen of the town of Milton by order dated December twenty-sixth, 1911, to another point on the boundary line between the towns of Milton and Hyde Park, said point being in the Neponset river, near the southerly shore, and distant about 163 feet, in a course north 38° 09' west from the stone monument standing on said boundary line and on the northerly side of the tracks of the Midland division of the New York, New Haven and Hartford Railroad Company;

Thence continuing in the same straight line in the town of Hyde Park S. 10° 02' 08" W. about 395 feet, crossing a portion of the Metropolitan park reservation and the Midland division tracks of the New York, New Haven and Hartford Railroad Company; thence by a 4° curve to the right 678.75 feet, crossing Vose avenue and the private street called Erie avenue; thence S. 37° 11' 08" W. 999.66 feet; thence by a 2° curve to the right 788.33 feet, crossing Warren and Fairmount avenues; thence S. 52° 57' 08" W. 324.35 feet; thence by a 2° curve to the left, 839.16 feet; thence S. 36° 10' 08" W. 1,373.33 feet crossing Dana avenue, Water, Garfield, Foster and Glenwood streets; thence by a 1° 50' curve to the left, 2,541.52 feet, crossing Water and Tyler streets, entering and continuing in the Metropolitan park reservation and crossing the Neponset river; thence S. 10° 25' 32" E. 425.86 feet; thence by a 2° curve to the right, 1,769.38 feet, leaving the park reservation and crossing Milton street and the track of the Blue Hill Street Railway Company; thence S. 24° 57' 43" W. 1,572.94 feet, again entering the Metropolitan park reservation; thence by a 2° curve to the right, 1,459.33 feet; crossing the boundary line between Hyde Park and Dedham; thence S. 54° 08' 55" W. 296.94 feet; thence

by a  $1^{\circ}$  curve to the left, 3,439.78 feet, crossing the Neponset river several times, where it is the boundary between Dedham and Canton; thence S.  $19^{\circ} 45' 03''$  W. parallel to and 132 feet from the base line of location of the Providence division of the New York, New Haven and Hartford railroad, 5,188.37 feet, crossing Green Lodge street and crossing the Neponset river twice where it is the boundary between Dedham and Canton, the boundary line between Dedham and Westwood, and the Neponset river several times where it is the boundary between Westwood and Canton; thence by a  $1^{\circ}$  curve to the left 1,621.81 feet, crossing the Neponset river several times where it is the boundary between Westwood and Canton; thence S.  $3^{\circ} 31' 58''$  W. 2640 feet; thence by a  $1^{\circ}$  curve to the right 3501.11 feet crossing Dedham road; thence S.  $38^{\circ} 32' 38''$  W. 774.65 feet, crossing the Providence division of the New York, New Haven and Hartford railroad; thence by a  $1^{\circ}$  curve to the left, 1493.33 feet; thence S.  $23^{\circ} 36' 38''$  W. 13465.11 feet, crossing the Neponset river twice, where it is the boundary between Canton and Norwood, crossing the Massapoag river, Neponset street, sometimes called Willow road, on which is the track of the Blue Hill street railway, the boundary line between Canton and Sharon, and Viaduct street; thence by a  $1^{\circ}$  curve to the left, 1118.89 feet; thence S.  $12^{\circ} 35' 18''$  W., 4,414.51 feet crossing Maskwonicut street; thence by a  $1^{\circ}$  curve to the right, 452.58 feet; thence S.  $16^{\circ} 56' 51''$  W., 2,325.06 feet, crossing Cronan street, Upland road and Crossmore road; thence by a  $1^{\circ}$  curve to the right, 1,497.83 feet; thence S.  $31^{\circ} 55' 33''$  W. 26,025.42 feet, crossing South Main and Wolomolopoag streets, the boundary line between Sharon and Foxborough, Oak, Chestnut and Cocasset streets; thence by a  $1^{\circ}$  curve to the right 521.25 feet; thence S.  $37^{\circ} 08' 18''$  W. 24,677.75 feet, crossing the Old Colony division tracks of the New York, New Haven and Hartford Railroad Company, Central street and the tracks of the Norfolk and Bristol Street Railway Company, Branch, High, Grove, South and Cedar streets, Wading river, the boundary line between Foxborough, in Norfolk county, and Mansfield, in Bristol county, Witch pond, the boundary line between Mansfield and North Attleborough and Plain street; thence by a  $1^{\circ}$  curve to the left, 2,185.83 feet, crossing the New Boston road; thence S.  $15^{\circ} 16' 48''$  W. 1,033.90 feet; thence by a  $1^{\circ}$  curve to the right, 2,986.37 feet; thence S.  $45^{\circ} 08' 37''$  W. 7,250.41 feet, crossing Mt. Hope and Smith streets; thence by a  $1^{\circ}$  curve to the left, 1,954.17 feet, crossing the intersection of Elm, Chestnut and Oak streets at Cheever's corner, so called, crossing the "Gee Whiz" line and the street line of the Interstate Consolidated Street Railway Company and Falls pond; thence S.  $25^{\circ} 36' 07''$  W. 25,936.80 feet, crossing Reservoir street, the Old Post road, the track of the North Attleborough line of the Interstate Consolidated Street Railway Company, Draper and Allen avenues, Washington street, Cumberland avenue, the boundary line between North Attleborough and

Attleborough, Coupe's pond, May street, Highland avenue and Brown street, the private streets called Howard, Tallman, Sycamore and Hawthorne avenues; thence by a  $1^{\circ}$  curve to the right, 4,147.77 feet, crossing Robinson avenue, Mendon road, Cranberry (or Carpenter's) pond and Pond street; thence S.  $67^{\circ} 04' 47''$  W. 412.64 feet, crossing Carpenter street and the private streets called Knoll, Sibley and Lawn streets, to a point on the boundary line between Massachusetts and Rhode Island, said point being about 86 feet southerly from the stone monument standing on said boundary line and on the northerly side of Carpenter street.

The track on the curves contained in the foregoing description may be modified by an appropriate form of transition easement, the details in each case to be determined by local conditions.

The grades of the railroad shall in general be as shown on said set of maps except that it is to be understood that when the proposed crossings of public streets and railroads are more fully worked out, application shall then be made to the Board for such modifications of these grades as may then appear to be necessary or desirable.

An examination of the said plan indicating the route of the said railroad discloses a proposed crossing at grade with the existing highway in the town of Westwood, known as "Green Lodge street". It is to be understood, in view of the policy of the Commonwealth, that this decision is not to be taken as an adjudication that this crossing at grade is to be approved in any subsequent proceedings before the Board which may arise with respect to this crossing.

The railroad shall in general be of standard steam railroad construction and the cars shall be operated by an overhead trolley system. It is understood that application shall hereafter be made to the Board for the approval of further details of construction.

FREDERICK J. MACLEOD,  
GEORGE W. BISHOP,  
CLINTON WHITE,

DECEMBER 30, 1911.

[6945-6954, 8063]

*Commissioners.*

## STREET RAILWAY LOCATIONS.

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*Requirements as to plans showing locations of street railway tracks.  
Circular.*

*To the Presidents of Street Railway Companies:*

A street railway company petitioning the Board for approval of a location, or an extension, alteration or revocation of a location, shall accompany its petition with a plan indicating in red the alignment and grades of tracks and position of poles on such location or extension, alteration or revocation of location. Said plan shall be of such scale as will clearly show the grades, curves, and locations of all poles, and shall have marked upon it degrees of curvature or radii of all curves, gradients in percentages, and elevations of all points where the gradient changes. Plans not to exceed 20 x 30 inches in size are desirable for the purpose of filing.

By order of the Board,

CHARLES E. MANN,  
*Clerk.*

JANUARY 11, 1911. [8137]

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*Petition of the Boston Elevated Railway Company for approval of plan No. 35400, showing the proposed location and construction of the elevated structure from the westerly terminus of the Beacon Hill tunnel to the Cambridge bridge in the city of Boston.*

The Boston Elevated Railway Company, in accordance with the provisions of Acts of 1897, chapter 500, section 6, and Acts of 1906, chapter 520, section 21, has prepared and filed with the Board plan No. 35400, showing the proposed form and method of construction and the proposed location of the tracks and elevated structure from the westerly terminus of the tunnel from the Park street subway station under Beacon Hill to a point near the intersection of Grove place and Grove street, in the city of Boston.

through and over public streets and private ways and lands to the Cambridge bridge, so called. The company requests that if upon examination said plan is found satisfactory the Board issue its certificate approving the same.

The only objection offered at the public hearing was in behalf of certain persons who contended that the public interest demands the erection of a station upon the elevated structure between the west portal of the tunnel and the Cambridge bridge.

The question presented, therefore, is whether the public interest requires the approval of the plan submitted by the Boston Elevated Railway Company for an elevated structure from the portal of the Beacon Hill tunnel to the Cambridge bridge, or whether the Board should suggest modifications of said plan with respect both to the route and the character of the structure, and the installation of a station upon it.

It is too apparent for discussion that the section of Boston in the vicinity of Charles and Cambridge streets and the contiguous section of Bowdoin square does not at the present time enjoy the ready access to the advantages of the rapid transit system of Boston to which these sections are fairly entitled. Whether or not this access could best be secured through the erection of a station upon the elevated structure between the tunnel and the bridge is a difficult question, and at the present time the difficulty is enhanced by a pending investigation and report relative to the proposed east and west tunnel and subway in the city of Boston, and certain other legislative proposals concerning subways to and through Bowdoin square.

The elevated structure, plans for which are now before the Board for approval, is part of a proposed through high speed line from Park street via the Beacon Hill tunnel and the Cambridge subway to Harvard square. The Board has already expressed its belief that three stations are now sufficient for the subway: a terminal station at Harvard square, and intermediate stations at Central and Kendall squares. The subway, elevated structure and tunnel will afford rapid transit for trains with cars about seventy feet in length from Park street to Harvard square, with stops at the two intermediate stations, and the scheme is designed to serve a large area in this section of the metropolitan district.

The installation of a station at or near Charles and Cambridge streets would, to a considerable degree, naturally retard the rapid movement of these trains and involve the relocation of the route

with undesirable curves, especially at the tunnel end of the elevated structure. The distance from the portal of the tunnel to the approach of the bridge is only about five hundred feet, and if a station were to be erected here it should, if possible, be located upon a tangent rather than upon a curve. The portal of the tunnel and the approach of the bridge are fixed and determined points, and any rearrangement or relocation of the proposed elevated structure must of necessity be confined within very narrow limits.

A further consideration arises in respect to extensions of the station platforms in the Cambridge subway and the construction of long platforms at Park street to accommodate trains of six to eight cars of seventy feet each. It would manifestly be impossible to install a station upon a tangent between the portal of the tunnel and the bridge with such length of platforms and insure safe operation. This limitation of space would necessarily create difficulties in receiving and discharging passengers from long trains.

A controlling factor, however, in the issue before us is that of time. It is now anticipated that the Cambridge subway will be open for use during the present year, and the Beacon Hill tunnel, as well. Unless, therefore, the Board is clearly of opinion that the installation of a station upon the elevated structure connecting the tunnel and subway is of immediate paramount importance, the opening of the through line to Cambridge ought not to be in any degree delayed. Obviously the re-routing and re-designing of the elevated structure and installation of a station would naturally consume a considerable amount of time.

While we are of opinion, as heretofore suggested, that the residents of the so-called West End are entitled to a better connection with the rapid transit system of Boston, we do not believe that the whole travelling public would be best served by the construction of a station at this time upon the elevated structure. We therefore deem it best to treat the situation as we dealt with the proposal for a station upon the Forest Hills extension at or near Green street, and approve the construction of the elevated structure as proposed, making no recommendation with regard to a station at this point. The Board distinctly reserves its right, however, to recommend the installation of a station upon the elevated structure between the tunnel and the bridge when in its opinion the entire public interest demands such action. We fully realize that the installation of such a station at some future time would entail considerable additional expense to the company, arising from the



many items of re-routing, reconstruction of structure, land damages and station accommodations, but, holding this view, we are content to approve the structure as proposed by the plan accompanying the petition. It will be recalled that the Board, subsequent to the approval of the structure plans for the Forest Hills extension, recommended the installation of a station at Green street, which permits its erection and at the same time admits of the movement of traffic over the structure.

While we may with propriety conclude here, we feel justified in stating our views with respect to conditions at Bowdoin square and the West End. In the Board's opinion these sections of the city might be adequately served by other instrumentalities of travel affording connections with the rapid transit system of Boston, and an extension of the East Boston tunnel under and through Bowdoin square and Cambridge street by means of a subway is a suggestion which appears to possess substantial merit. Although it is not our function to make a decision upon this proposition it may fairly be said that such a plan would afford a means of ready transportation from this whole area and a quick connection with the entire rapid transit system. The route is one that in our opinion would most naturally be travelled by residents of the section west of Bowdoin square, and a saving of time would thus be secured without any sacrifice of speed or service upon the through line to Cambridge.

Although we are perhaps somewhat outside our province in so doing, we feel impelled in the public interest to make this statement. Should such a subway service be installed, as a result of present and future proposals with regard to an extension of the rapid transit system of Boston, we believe it would relieve the situation and secure adequate transportation facilities to the residents of this section of the city. The erection of a station upon the elevated structure at or near Charles and Cambridge streets would tend to prejudice this movement by depriving residents of the vicinity of sound reason for the subway connection via Bowdoin square with the Tremont street subway, the Washington street tunnel and the Atlantic avenue elevated.

The Board's certificate of approval of plan No. 35400 will therefore issue, subject, however, to the conditions of this order.

For the Board,

CHARLES E. MANN,

*Clerk.*

APRIL 12, 1911. [8182]

*Certificate.*

The annexed plan, numbered 35400, showing the form and method of construction proposed and the proposed location of the tracks and elevated structure of the Boston Elevated Railway Company in the city of Boston, from the westerly terminus of a tunnel from the Park street subway station under Beacon Hill to a point near the intersection of Grove place and Grove street through and over public streets and private ways and lands to the Cambridge bridge, is hereby approved.

WALTER PERLEY HALL,  
GEORGE W. BISHOP,  
CLINTON WHITE,

APRIL 12, 1911.

[8182]

Commissioners.

*Petition of the Boston Elevated Railway Company for approval of plans numbered 35401, 35402, 35403, 35404 and 35406, showing proposed location and form and method of construction of its railway upon and over the Cambridge bridge and in Main street in the city of Cambridge, from the easterly incline of the Cambridge Main street subway to a suitable connection with its elevated structure in Cambridge street in the city of Boston.*

ARTHUR A. BALLANTINE for petitioner.

JOHN ABBOTT for Massachusetts General Hospital.

The Boston Elevated Railway Company has filed with the Board plans numbered 35401, 35402, 35403, 35404 and 35406, showing proposed location and proposed form and method of construction of its railway upon and over the Cambridge bridge and in Main street, Cambridge, from the easterly incline of the Cambridge Main street subway to a suitable connection with its elevated structure in Cambridge street, Boston, and showing the extent to which any street, way, avenue, bridge, public or private lands are to be encroached upon. Said plans were filed in accordance with the provisions of Acts of 1897, chapter 500, section 6, and Acts of 1906, chapter 520, section 21.

The Cambridge bridge, so called, was erected and designed to carry not only foot and highway traffic, but also the tracks for surface cars and for trains of the Boston Elevated Railway Company. The surface tracks upon the bridge are laid in the highway

on either side, while the central section of the bridge has been designed for the sole use of the high speed trains between Boston and Cambridge.

According to the plans presented by the company the tracks for these trains were to be enclosed between concrete parapet walls on either side and the ties supporting the rails were to be laid directly upon the girders which form a part of the steel superstructure of the bridge, thus leaving an open rather than a solid roadbed underneath the tracks.

The Boston Elevated Railway Company requested the Board to examine said plans, and if they were satisfactory to issue a certificate approving the same. This petition was filed July 11, 1911, and an order of notice duly issued thereon and a public hearing was held July 20, 1911. At this hearing certain remonstrants appeared and were heard in opposition to the approval of said plans. The opposition was directed to the method indicated in the plans for the laying of the tracks, as tending to increase unduly the noise incident to the operation of the trains. The Board thereupon engaged William Barclay Parsons, an engineer of large experience, to make a study of the plans and report to the Board. Several views were taken by the Board, accompanied by Mr. Parsons and representatives of the company and the remonstrants.

As a result of the investigation made, the Board was of the opinion that a fence on either side of the elevated tracks could be substituted for the proposed concrete walls, and that the noise incident to the operation of the trains on this bridge could be minimized by the installation of a concrete track floor properly ballasted. In the opinion of the Board these changes in the plans would in no way impair the strength or stability of the bridge or the public safety. The Board was also of the opinion that if an open space were left on the outside of the track floor on either side in order to facilitate the handling of snow, the changes suggested would not interfere with the efficient operation of the train service.

In this case the Board had in mind that other considerations were involved besides the comfort and convenience of private land owners and residents in the vicinity of the bridge. The proximity of the Massachusetts General Hospital, which performs so large a function in the care of the sick and the infirm, made it pertinent to consider that the discomfort resulting from excessive noise is apt to become acute and may even prove dangerous to those in a precarious state of health. Moreover, large public expenditures

have been made for the sole purpose of fitting the Charles River basin, its shores and the bridge, for public enjoyment and recreation. We believe that these purposes should not be defeated or impaired by reason of excessive noise beyond what is reasonably necessary for the practicable operation of elevated trains upon this bridge.

In view of all the circumstances, the Board declined to issue a certificate approving the above mentioned plans filed by the Boston Elevated Railway Company, and suggested to the company the filing of new plans based in substance upon the specifications of Mr. Parsons in a communication to the Board under date of August 3, 1911.

In compliance with our suggestion, the Boston Elevated Railway Company has filed substitute plans numbered 35407, 35408, 35409 and 35410, which embody the modifications we have suggested in regard to the form and method of construction and the location of tracks and appurtenant structures upon the Cambridge bridge. These plans as now presented are satisfactory to the Board.

By the Board,

FREDERICK J. MACLEOD,

AUGUST 25, 1911. [8393]

*Chairman.*

*Certificate.*

The annexed plans, numbered 35407, 35408, 35409 and 35410, showing the proposed location and the proposed form and method of construction of the railway of the Boston Elevated Railway Company upon and over the Cambridge bridge and in Main street from the easterly incline of the Cambridge Main street subway in the city of Cambridge to a connection with its elevated structure in Cambridge street in the city of Boston, are hereby approved.

FREDERICK J. MACLEOD,  
CLINTON WHITE,

AUGUST 25, 1911. [8393]

*Commissioners.*

*Petition of the Boston Elevated Railway Company for approval of plans showing proposed location of elevated railway from Causeway street at Nashua street in Boston to Lechmere square in Cambridge.*

The annexed plans, numbered 26890, 26891, 26892, 26893, 26894, 26895 and 25225, showing the form and method of construction proposed and the proposed location of the tracks and elevated structure of the Boston Elevated Railway Company from Causeway street at Nashua street in the city of Boston to Lechmere square in the city of Cambridge (said plans being a modification or change of plans numbered 26870, 26871, 26872, 26873, 26874, 26875, 26876, 26877 and 25221, approved by the Board November 27, 1907), are hereby approved, consent being given to the changes shown.

WALTER PERLEY HALL,  
GEORGE W. BISHOP,  
CLINTON WHITE,

MARCH 8, 1911. [S183] \_\_\_\_\_ *Commissioners.*

*Petition of the Boston Elevated Railway Company for approval of plan showing proposed track system for its elevated structure in Boston and Cambridge.*

The annexed plan, numbered 10263, showing the construction of the proposed track system of the East Cambridge extension of the elevated structure of the Boston Elevated Railway Company from Causeway street, near Haverhill street, in the city of Boston, to Lechmere square in the city of Cambridge, is hereby approved.

WALTER PERLEY HALL,  
CLINTON WHITE,

AUGUST 3, 1911. [S405] \_\_\_\_\_ *Commissioners.*

*Petition of the Boston Elevated Railway Company for approval of plans showing parapet on portions of the East Cambridge extension of its elevated railway.*

The annexed plans, numbered 26896 and 13910, showing the form and method of construction proposed and the proposed location of a parapet on portions of the elevated structure of the Boston Elevated Railway Company from a point in Causeway street

near Nashua street in the city of Boston to a point in Lechmere square in the city of Cambridge, said plans being a modification or change of plans numbered 26870, 26871, 26872 and 26876, approved by the Board November 27, 1907, are hereby approved, consent being given to the changes shown.

FREDERICK J. MACLEOD,  
GEORGE W. BISHOP,  
CLINTON WHITE,

DECEMBER 11, 1911.

[8588]

*Commissioners.*

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*Petition of Hammond Hotels Company for re-hearing in relation to location of switches and crossover on the Boston Elevated railway near South station on Atlantic avenue in the city of Boston.*

HENRY M. WILLIAMS for Hammond Hotels Company.

A. A. BALLANTINE for Boston Elevated Railway Company.

The petitioner prays that a further hearing may be had upon the petition of the Boston Elevated Railway Company for approval of plan No. 27749, showing proposed changes in its elevated structure at the South station in the city of Boston, to adapt the same for the running of eight-car trains and shuttle trains, together with the Board's order thereon.

The petition of the Boston Elevated Railway Company was filed on August 17, 1909, and thereafter order of notice was duly issued, in conformity with statute, and a public hearing held. On September 13, 1909, the engineer provided for by statute filed his report with the Board, and thereafter, on September 14, 1909, a certificate was issued approving the proposed modifications and changes as shown on said plan No. 27749. The petitioners allege that they had no actual notice of these proceedings, and ask that the case be re-opened for further hearing and an opportunity given them to object to said plan and be heard thereon, in part upon the grounds that the public convenience and comfort as represented by the Hammond Hotels Company conducting the Hotel Essex was overlooked or ignored. The Boston Elevated Railway Company contends that no authority of law exists sufficient to vacate the order of the Board except upon the application of the company itself. We find it unnecessary to make a decision upon this proposition in view of other facts that appear.

Several months ago the petitioners filed a bill in equity with the Superior Court for the county of Suffolk alleging, among other things, that the alterations and additions to the elevated structure on Atlantic avenue opposite their hotel and the South station were in progress, and praying, among other things, that the respondent, the Boston Elevated Railway Company, be restrained from prosecuting its work upon said additions and alterations in the night time, and that after a hearing upon said petition the night work complained of upon these alterations was, by agreement of the parties, carried on under the supervision of a representative of the court. The pleadings in this case disclose that upon that date the petitioners had knowledge of the alterations and additions to the respondent's elevated structure opposite the South station and the plaintiff's premises; but that no proceedings were then taken relative to the order of the Board authorizing the same; nor have any other proceedings been taken, until this petition was filed January 16, 1911; although the work, all done in the day time, went on with some interruptions until the last two days of December, when night work began again, which was carried on as before under the supervision of a representative of the court under the bill in equity above referred to; and immediately after the resumption of night work these complainants notified the railroad company of the results of the operation over the new switches and frogs in the main tracks and of their objection thereto, and asked that operation upon the tracks as altered be given up.

In view of these facts the Board is of opinion that no cause exists for re-opening the hearing or for vacating the order of the Board, if authority therefor exists. The petition must therefore be dismissed.

For the Board,.

CHARLES E. MANN,

FEBRUARY 9, 1911. [7457]

Clerk.

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*Petition of the Boston Elevated Railway Company for approval of plans showing changes in elevated structure at Sullivan square in Boston.*

The annexed plans, numbered 35453 and 35454, showing proposed modifications and changes in the elevated structure, platforms and station and approaches thereto of the Boston Elevated

Railway Company in Main, Beacham and Alford streets and Sullivan square in the Charlestown district of the city of Boston, in order to adapt the same to the running of eight-car trains and to provide a connection for the proposed extension of elevated railway to Malden (said plans being a modification or change of plans numbered 28043 and 28044, approved by the Board December 5, 1910), are hereby approved, consent being given to the changes shown.

FREDERICK J. MACLEOD,  
CLINTON WHITE,

AUGUST 23, 1911. [8422]

Commissioners.

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*Petition of the Old Colony Street Railway Company for approval of location and relocation in Columbia street in the city of Fall River.*

This application comes before us upon the petition of the Old Colony Street Railway Company (now the Boston and Northern Street Railway Company) for approval of a certain order of the board of aldermen of the city of Fall River, granting the company permission to alter and relocate its existing tracks and extend its location by constructing an additional track in Columbia street. The existing track in Columbia street, and its connection with the tracks in South Main street, was granted before the statute requiring the approval of the Board was enacted. It is now proposed to double track a section of Columbia street from its connection with South Main street for a distance of about 800 feet to a switch connection with the single track at or near Hunter street. The grade of Columbia street is descending to the point of extension of the proposed double track and continues in a descending grade for a considerable distance westerly.

While it is not the function of this Board in passing upon grants by municipal authorities for the location of street railway tracks in a highway to refuse its approval upon the suggestion of remote possibility of accidents, the situation here is such that we are reluctant to give our consent, for the reason that a much better method of relieving the present congestion of street railway traffic is found in an extension of the proposed double tracks in a westerly direction to a point at or near the foot of the grade, and the extra expense of this undertaking in our opinion will be more than counterbalanced by the additional factor of safety in operation. We



therefore suggest to the company its consideration of applying to the local authorities of the city of Fall River for a double track location in Columbia street, from the corner of South Main street to a point at or near the foot of the hill.

Without formally refusing the application, therefore, we continue the petition without prejudice.

For the Board,

CHARLES E. MANN,

JULY 27, 1911. [8361]

Clerk.

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*Petition of the Berkshire Street Railway Company for approval of location in the town of Becket.*

After notice and hearing and full consideration,—it is

*Ordered*, That the Board, under the provisions of general laws and of chapter 601 of the Acts of 1910, hereby certify that the locations for the tracks of the Berkshire street railway in the town of Becket, as shown between the Lee-Becket town line and station 440 (excepting so much thereof as is shown as lying within the town of Otis) upon a plan filed with the petition, including locations in certain highways in that town established under an order of the selectmen of said town, on file in this office, dated July 14, 1911, also shown upon said plan, are consistent with the public interests and are hereby approved.

Attest:

CHARLES E. MANN,

AUGUST 2, 1911. [8411]

Clerk.

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*Petitions of the Berkshire Street Railway Company for approval of locations in the town of Lee.*

After notice and hearing and further consideration,—it is hereby

*Ordered*, That the Board, under the provisions of general laws of chapter 601 of the Acts of 1910, hereby certify that the locations for the tracks of the Berkshire street railway in the town of Lee, described in the grant of the selectmen made May 10, 1911, a copy of which grant is annexed to the petitions of the street railway company dated June 14, 1911, filed with the Board, including locations upon private land, all as shown upon plans, filed with the petitions, numbered B-145, dated April, 1911, and B-149, dated April, 1911, excepting so much of said locations as lie within the

limits of state highways, are consistent with the public interests and are hereby approved; and that the approval of the Board as to so much of said locations as lie within the limits of state highways is suspended until further detailed plans showing location of said railway within the limits of state highways have been presented to and approved by the Board.

By the Board,

CHARLES E. MANN,

SEPTEMBER 20, 1911. [8348]

Clerk.

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*Petitions of the Berkshire Street Railway Company for approval of relocation in the town of Lee.*

After notice and hearing and further consideration, — it is

*Ordered*, That the Board, under the provisions of general laws and of chapter 601 of the Acts of 1910, hereby certify that the relocation of the tracks of the Berkshire street railway in the town of Lee, described in the grant of the selectmen of said town dated October 23, 1911, a copy of which grant is annexed to the petitions of the street railway company dated November 7, 1911, including relocation upon private land, all as shown upon plan numbered B-187, dated August, 1911, on file with the petitions (said relocation being a modification of location approved by an order of the Board dated September 20, 1911) is consistent with the public interests and is hereby approved.

Attest:

CHARLES E. MANN,

NOVEMBER 20, 1911. [8557]

Clerk.

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HIGHWAY LOCATIONS.

*Petition of the Boston and Northern Street Railway Company for approval of temporary location in Lowell.*

After consideration, — it is

*Ordered*, That the approval of the Board be hereby given, under the provisions of chapter 518 of the Acts of 1910, to the temporary location of the tracks of the Boston and Northern Street Railway Company in Gorham street in the city of Lowell, established under an order of the board of aldermen of said city adopted March 21, 1911, a copy of which order, with accompanying plan, is on file in this office, for the purpose of enabling said company to avoid

interruption of its service during the work of the reconstruction of the Boston and Maine railroad bridge on Gorham street in Lowell.

Attest: CHARLES E. MANN,

APRIL 4, 1911.

[8220]

Clerk.

*Petition of the mayor and board of aldermen of Pittsfield for approval of certain extensions of the Berkshire street railway in that city, under the provisions of chapter 601, Acts of 1910.*

In the matter of the order of the board of aldermen of the city of Pittsfield, adopted January 16, 1911, and approved by the mayor of said city January 17, 1911, a copy of which order is on file with this Board, requesting the Berkshire Street Railway Company to make certain extensions, double tracking, and track reconstruction within the city of Pittsfield under the provisions of chapter 601 of the Acts of 1910:

After public notice and public hearings thereon, held at the office of the Board and in the city hall of said city, and after a view of all the public ways and places in which the proposed extensions, double tracking, and track reconstruction have been requested in said order, — it is

*Ordered*, That the Board hereby approves as consistent with the public interest and convenience:

*First*. So much of the extension requested in the paragraph marked *First* of said order as lies between the present terminus of the company's line on Peck's road, so called, and the four corners at the intersection of the Lanesborough road, so called, and Hancock road, the portion of the location for said extension hereby approved being shown as a solid red line in said Peck's road and said Lanesborough road on a plan marked "General Plan Showing Street Railway Extension requested by City of Pittsfield, Mass., under provisions of Chapter 601, Acts 1910", dated Feb. 1, 1911, and prepared by A. B. Farnham "Eng. Board of Public Works", a copy of which plan is on file with this Board, said solid red line beginning at the present terminus of the said Peck's road line of said company and ending at the intersection of said Lanesborough road and Hancock road, shown on said plan.

*Second*. So much of the extension requested in the paragraph marked *Fourth* of said order as lies between the present terminus of the West Pittsfield line, so called, of said company, in Lebanon avenue, and the bridge near the West Pittsfield station of the

Boston and Albany railroad, by which said Lebanon avenue is carried over and across said railroad, the portion of the location for said extension hereby approved being shown as a part of a red line in said Lebanon avenue, beginning at the present terminus of the said West Pittsfield line of railway on the plan hereinbefore referred to.

*Third.* The reconstruction of the present track, shown in yellow on said plan, of said company in Wahconah street, beginning at the southerly junction thereof with North street, and the construction of a second track parallel with the present track as reconstructed, shown in red on said plan, together constituting double tracks, substantially occupying the central portion of said Wahconah street, from the junction of said tracks, as located by said request and as hereby approved, with, and constituting by suitable connections therewith an extension of, said company's existing double tracks in said North street from a point southerly of the southerly junction thereof with Wahconah street, along North street, Wahconah street and North street again to a point in said North street northerly of its junction with Hancock road and near the outlet of Pontoosuc lake, said point being shown on said plan by the northerly end of said red line, said tracks there connecting by suitable curves and switches with said company's existing track to Lanesborough.

*Ordered, further,* That said Berkshire Street Railway Company be, and hereby it is, required to prepare plans of the tracks, curves and switches of such of the extensions and double tracks, located in said request of the mayor and board of aldermen of said city of Pittsfield, as are hereinbefore approved (excepting, however, that portion of the double tracks in said Wahconah street so approved, the time for construction of which is hereinafter extended until the completion of the widening of said street by said city), showing the exact location of the tracks and poles proposed by the company, and the other usual details of detailed street railway plans, to conform to the general location thereof made in said request so far as such general locations, described in said request, have been approved by this Board, and to submit said plans to said board of aldermen within said thirty days, and to submit with said plans a detailed description of the kind of rails, poles, wires, ties, paving, if any, and other appliances, and the method of construction proposed to be used by said company; and upon an agreement, or in case of a disagreement, between said company and said board of aldermen as to the exact location of said tracks and poles, as to the kind of rails, poles, wires, ties, paving and other appliances,

and as to the method of construction, and in any event within sixty days after such submission of said plans and description to said board of aldermen, to submit the same, or, in case of an agreement upon different plans and upon any modification of the details of such description, the plans and description as agreed upon or modified, to this Board for its approval, or other appropriate action in case of a disagreement between the company and the board of aldermen, under the provisions of section 3 of said chapter 601 of the Acts of 1910.

*Ordered, further,* That, in view of the opinion of the representatives of the city that said Wahconah street is not now of sufficient width, northerly of the junction therewith of the street shown as Wilson street on said plan, satisfactorily to accommodate two tracks therein, and that the relief desired by the construction of said double tracks in Wahconah and North streets may, for the present and until such time as said street may be widened in accordance with law, be secured by the construction of said double tracks from the southerly junction of said Wahconah and North streets to the junction of said Wahconah and Wilson streets, the time for the construction of so much of said double tracks as are to extend northerly in said Wahconah street from the junction of said Wahconah and Wilson streets to said point near the outlet of Pontoosuc lake, be, and hereby it is, extended until fifteen months after said portion of Wahconah and North streets shall have been legally widened by the city to a width sufficient in the opinion of this Board to permit of the construction therein of double tracks; and until the beginning of said fifteen months said double tracks shall be constructed only to a point opposite the northerly side of said Wilson street, there connecting by suitable curves and switches with said company's single track in said Wahconah street north of said Wilson street, constituting the remainder of its present line to Pontoosuc lake and beyond, and this Board hereby certifies that in its judgment due diligence has been exercised by the Berkshire Street Railway Company, and that public necessity and convenience require such extension of time.

By the Board,

CHARLES E. MANN,

*Clerk.*

DECEMBER 29, 1911.

[8196]

*Petition of the Worcester and Providence Street Railway Company for approval of relocation of tracks of the Worcester Consolidated street railway in Worcester and for approval of location for its tracks in said city.*

After notice and hearing and full consideration, — it is

*Ordered*, That the Board hereby certify that the relocation of the tracks of the Worcester Consolidated street railway in Portland street in the city of Worcester and location for the tracks of the Worcester and Providence street railway in Madison and Portland streets in said city of Worcester, established under orders of the board of aldermen of said city adopted November 28, 1910, copies of which orders, with amended plan, are on file in this office, are consistent with the public interests.

The Board in issuing its approval under the foregoing order desires it to be distinctly understood that, prior to the time of the opening for use of the track of the Worcester and Providence Street Railway Company, adequate arrangements must be made, by grant of crossover or connection location, or otherwise, so that in the interest of public safety cars of both companies shall not run in the same direction at the same time upon the tracks of both companies in Portland street.

Attest: CHARLES E. MANN,

JANUARY 7, 1911.

[8092]

*Clerk.*

Under the provisions of chapter 399 of the Acts of 1902 (now section 7, part III, chapter 463, Acts of 1906) the Board has, during the period covered by this report, issued many additional certificates that the locations or alterations of locations for the tracks of various street railway companies granted by local authorities are consistent with the public interests. Under prior legislation it has also approved locations granted street railway companies in the city of Boston, the city of Cambridge and the town of Brookline.

Appended is a list of such additional highway locations granted to various street railway companies and approved by the Board: —

*Athol and Orange Street Railway Company.*

Athol, September 14, 1911 — Location in Main street, established under an order of the selectmen dated August 30, 1911. [8462]

*Bay State Street Railway Company.*

Brockton, December 29, 1911 — Relocation in Court and Cary streets, established under an order of the board of aldermen dated October 16, 1911. [8609]

Fall River, November 29, 1911 — Location and relocation in Columbia street, established under an order of the board of aldermen, dated October 16, 1911. [8570]

Gloucester, November 29, 1911 — Relocation in the state highway, locally known as Western avenue, established under an order of the Massachusetts highway commission dated November 8, 1911. [8581]

Gloucester, December 29, 1911 — Relocation in Essex avenue, established under an order of the municipal council adopted December 4, 1911. [8611]

Hyde Park, December 18, 1911 — Relocation in Hyde Park avenue, between Oak street and Dana avenue, established under an order of the selectmen dated November 27, 1911. [8591]

Lowell, October 7, 1911 — Relocation in East Merrimack street, established under an order of the board of aldermen adopted September 5, 1911. [8487]

Lowell, October 7, 1911 — Location in Dutton street, established under an order of the board of aldermen adopted September 5, 1911. [8486]

Milton, October 6, 1911 — Location in Brook road, between Blue Hill parkway and Central avenue, established under an order of the selectmen dated September 23, 1911. [8488]

Quincy, October 25, 1911 — Location and relocation in Billings road, established under an order of the city council adopted September 18, 1911. [8505]

Rockport, September 5, 1911 — Relocation in Main street and Railroad avenue, established under an order of the selectmen dated August 5, 1911. [8433]

Somerset, August 16, 1911 — Relocation in the state highway known as Pleasant street, established under an order of the Massachusetts highway commission dated July 18, 1911. [8425]

Wakefield, September 6, 1911 — Relocation in Albion street, established under an order of the selectmen dated August 10, 1911. [8439]

Weymouth, September 14, 1911 — Relocation in Main, West and Front streets at Liberty square, established under an order of the

selectmen dated August 1, 1911. [8454] (*See also Boston and Northern and Old Colony.*)

*Berkshire Street Railway Company.*

Lee, November 1, 1911 — Location for pole lines over, across and upon certain highways, established under an order of the selectmen dated September 27, 1911. [8518]

Lee, November 16, 1911 — Location in Pleasant street, established under an order of the selectmen dated August 21, 1911. [8377]

Pittsfield, October 16, 1911 — Location in New West street, established under an order of the board of aldermen dated October 17, 1910, as amended by an order of the board of aldermen dated October 6, 1911. [8506]

Pittsfield, October 16, 1911 — Location in East street, Bank row, North and West streets, established under an order of the board of aldermen dated October 3, 1910, as amended by an order of said board of aldermen dated October 6, 1911. [8508]

Pittsfield, October 25, 1911 — Locations in North and Wahconah streets, established under an order of the board of aldermen dated October 11, 1911. [8515]

Pittsfield, November 17, 1911 — Relocation in Elm street, established under an order of the board of aldermen dated October 16, 1911. [8560]

Pittsfield, December 6, 1911 — Location in Old Dalton, New Dalton and Dalton roads, established under an order of the board of aldermen dated October 3, 1910, as amended by an order of said board of aldermen dated October 6, 1911, and an order of the Massachusetts highway commission dated November 28, 1911. [8507]

*Boston and Northern Street Railway Company.*

Chelsea, May 3, 1911 — Relocation in Broadway and Washington avenue, established under an order of the board of control dated April 5, 1911. [8240]

Gloucester, June 10, 1911 — Relocation in East Main street, Eastern avenue and Essex avenue, established under orders of the municipal council dated May 19, 1911. [8295]

Gloucester, July 21, 1911 — Location for turnout in Essex avenue, established under an order of the municipal council dated June 27, 1911. [8382]

Haverhill, June 22, 1911 — Relocation in Water street, estab-



lished under an order of the municipal council dated April 20, 1911. [8330]

Lawrence, June 5, 1911 — Location in Lawrence street, and location and relocation in Union street, established under orders of the board of aldermen adopted April 24, 1911, and May 15, 1911, respectively. [8288]

Lowell, March 10, 1911 — Relocation in Appleton and Chelmsford streets and in Bridge street, First street and Lakeview avenue, established under an order of the board of aldermen adopted December 30, 1910. [8186]

Marblehead, May 22, 1911 — Relocation in Lafayette street, from the Salem line to Pleasant street, established under an order of the selectmen dated May 3, 1911. [8262]

Melrose, July 1, 1911 — Relocation in Green street, from the Lynn Fells parkway to Avon street, established under an order of the board of aldermen dated June 5, 1911. [8360]

North Reading, June 5, 1911 — Location and relocation in Main street, established under orders of the selectmen and the Massachusetts highway commission dated December 31, 1910, and May 9, 1911, respectively. [8281]

Norwood, July 12, 1911 — Location for turnout in Washington street near the Balch schoolhouse, established under an order of the selectmen dated June 19, 1911. [8373]

Salem, July 12, 1911 — Relocation in Lafayette street, Derby street and Fort avenue, established under an order of the board of aldermen dated June 28, 1911. [8388]

Tewksbury, July 21, 1911 — Relocation in the state highway known as Main street, established under an order of the Massachusetts highway commission dated June 21, 1911. [8391]

Weymouth, August 1, 1911 — Location and relocation in the state highway known as Bridge street, established under an order of the selectmen adopted May 29, 1911, and an order of the Massachusetts highway commission adopted July 11, 1911. [8418]  
(*See also Bay State and Old Colony.*)

*Boston and Worcester Street Railway Company.*

Framingham, April 14, 1911 — Location in Main street at Central square, established under an order of the selectmen dated April 3, 1911. [8224]

Framingham, June 22, 1911 — Relocation in Worcester street, between Winter and Cross streets, established under an order of the

selectmen dated May 31, 1911, as amended by an order of said selectmen dated June 6, 1911. [8342]

Marlborough, October 24, 1911 — Relocation in Maple street, established under an order of the board of aldermen adopted August 9, 1911. [8430]

Marlborough, October 24, 1911 — Relocation in Main street, established under an order of the board of aldermen adopted August 9, 1911. [8431]

Southborough, August 1, 1911 — Location in White Bagley road and Worcester street at White's Corner, established under an order of the selectmen adopted July 7, 1911. [8420]

*Brockton and Plymouth Street Railway Company.*

Plymouth, June 5, 1911 — Location for turnout in Court street, established under an order of the selectmen dated May 8, 1911. [8289]

*Connecticut Valley Street Railway Company.*

Deerfield, June 5, 1911 — Location in the highway, established under an order of the selectmen dated September, 1909. [8225]

Deerfield, June 5, 1911 — Location within the limits of the Sugarloaf state reservation, granted by an order of the selectmen dated September, 1909, and approved by the Mount Sugarloaf state reservation commission, under chapter 592 of the Acts of 1910, in an order dated April 4, 1911. [8225]

Northampton, May 8, 1911 — Relocation on two highway bridges spanning the New York, New Haven and Hartford railroad and approaches thereto, established under an order of the board of aldermen adopted April 6, 1911. [8230]

Northampton, June 22, 1911 — Relocation in Day avenue and Bridge street, established under an order of the board of aldermen dated March 16, 1911, and under an order of the Massachusetts highway commission dated June 6, 1911, as amended by an order date June 13, 1911. [8253]

*East Taunton Street Railway Company.*

Lakeville, May 17, 1911 — Relocation in Taunton street, established under an order of the selectmen dated April 15, 1911. [8238]

*Haverhill and Amesbury Street Railway Company.*

Amesbury, February 2, 1911 — Location for a turnout in the state highway known as Elm street, established under an order of the Massachusetts highway commission dated January 3, 1911. [8158]

Amesbury, June 5, 1911 — Location and relocation of poles in Elm street, established under an order of the selectmen dated April 27, 1911. [8284]

Salisbury, April 14, 1911 — Location at Salisbury square in the highways leading from Salisbury square to Newburyport and to Amesbury, established under an order of the selectmen dated March 30, 1911. [8227]

*Holyoke Street Railway Company.*

South Hadley, April 18, 1911 — Location in College street, established under an order of the selectmen dated October 10, 1910. [8165]

*Interstate Consolidated Street Railway Company.*

Attleborough, July 8, 1911 — Relocation in the newly located section of South Main street, established under an order of the selectmen dated May 24, 1911. [8374]

North Attleborough, January 14, 1911 — Location in Elm street, established under an order of the selectmen dated November 30, 1910. [8120]

*Lexington and Boston Street Railway Company.*

Bedford, December 11, 1911 — Location for one pole on Concord road near Davis road, established under an order of the selectmen dated August 31, 1911. [8540]

Lexington, January 17, 1911 — Location for poles in Massachusetts avenue, established under an order of the selectmen dated December 31, 1910. [8135]

Lexington, October 3, 1911 — Relocation in Waltham street, established under an order of the selectmen dated September 16, 1911. [8479]

*Lowell and Fitchburg Street Railway Company.*

Ayer, July 19, 1911 — Location in Sandy Pond road, established under an order of the selectmen dated April 1, 1911. [8378]

Westford, July 13, 1911 — Relocation in Main street and in the private way known as Beacon street, established under an order of the selectmen dated June 19, 1911. [8379]

*Middlesex and Boston Street Railway Company.*

Newton, March 10, 1911 — Location for one pole in Walnut street, established under an order of the board of aldermen dated February 20, 1911. [8193]

Newton, July 12, 1911 — Location for poles in Commonwealth avenue, established under an order of the board of aldermen dated June 26, 1911. [8380]

Watertown, May 26, 1911 — Location for one pole in Main street, established under an order of the selectmen dated April 14, 1911. [8278]

Wellesley, May 3, 1911 — Location for turnout in Washington street at Florence avenue, established under an order of the selectmen dated March 25, 1911. [8245]

*Newtonville and Watertown Street Railway Company.*

Watertown, January 24, 1911 — Location for nine poles in North Beacon street, established under an order of the selectmen dated December 23, 1910. [8150]

*Oak Bluffs Street Railway Company.*

Oak Bluffs, June 10, 1911 — Location from a connection with the present track in Nashawena park, through Wamsutta avenue to Circuit avenue, established under an order of the selectmen dated August 1, 1910. [8273]

*Old Colony Street Railway Company.*

Boston, February 2, 1911 — Location and relocation in the state highway known as Washington street, at or near its junction with Grove street, established under an order of the Massachusetts highway commission dated November 2, 1910. [8157]

Boston, February 23, 1911 — 12th location: alteration of existing double tracks in Washington street, West Roxbury, near Grove street, and location for curve at the northerly corner of Washington and Grove streets, established under an order of the board of street commissioners dated December 27, 1910. [8134]

Boston, March 29, 1911 — 13th location: temporary location, under chapter 518 of the Acts of 1910, for additional track in

Walk Hill street between Hyde Park avenue and Washington street, with double curved tracks connecting with the existing tracks in Hyde Park avenue and Washington street, and additional cross connection in Hyde Park avenue south of Walk Hill street, established under an order of the board of street commissioners dated March 9, 1911; for the purpose of avoiding interruption to street railway service during the work of sewer construction in Hyde Park avenue in Boston. [8214]

Dedham, May 10, 1911 — Relocation in Washington street, between Court and Prospect streets, established under an order of the selectmen dated April 18, 1911. [8257]

Hyde Park, June 22, 1911 — Relocation in West River street and Hyde Park avenue, established under an order of the selectmen dated May 19, 1911. [8329]

Quincy, May 24, 1911 — Location for a single curve branch-off in Washington street opposite Foster street, established under an order of the city council adopted April 24, 1911. [8261]

Weymouth, June 10, 1911 — Relocation in Broad street, established under an order of the selectmen dated April 27, 1911. [8294] (*See also Boston and Northern and Bay State.*)

*Plymouth and Sandwich Street Railway Company.*

Bourne, June 29, 1911 — Locations in the Plymouth highway, in Norris road, in Clark road, in Standish road or Shore street, and in Hunters Brook road, established under an order of the selectmen dated May 10, 1911. [8321]

Plymouth, December 29, 1911 — Location in the state highway, the Plymouth and Sandwich road, Cedarville road, Pondville road and certain other streets that will be crossed in going over private land between said point of beginning and the Bourne boundary line, established under an order of the selectmen dated November 9, 1911, and the Massachusetts highway commission dated December 12, 1911. [8619]

Sandwich, June 29, 1911 — Locations in Main street, Back road, Willow street and Jarves street established under an order of the selectmen dated February 27, 1911. [8212]

*Point Shirley Street Railway Company.*

Winthrop, March 8, 1911 — Location in Shirley street, established under an order of the selectmen dated February 13, 1911. [8187]

Winthrop, June 5, 1911 — Relocation in Shirley street near Petrel street, established under an order of the selectmen dated May 8, 1911. [8280]

*Springfield Street Railway Company.*

Brimfield, May 26, 1911 — Location for turnout at a point about two hundred eighty feet westerly of the westerly abutment of the bridge over Mountain brook, established under an order of the selectmen dated March 7, 1911. [8277]

Chicopee, August 3, 1911 — Location for a turnout in Center street, at Exchange street, established under an order of the board of aldermen adopted July 10, 1911. [8415]

Longmeadow, July 10, 1911 — Location in Main street, established under an order of the selectmen dated June 2, 1911, as amended by an order dated July 6, 1911. [8333]

Ludlow, April 1, 1911 — Location on bridge over the Chicopee river, and in East, Sewall and Winsor streets, established under an order of the selectmen dated January 2, 1911, as amended by an order of said selectmen dated February 6, 1911. [8185]

Palmer, February 21, 1911 — Relocation in North Main street, established under an order of the selectmen granted to the Springfield and Eastern Street Railway Company under date of November 16, 1910, as amended by an order of said selectmen granted to the Springfield Street Railway Company under date of January 25, 1911. [8086]

Palmer, February 21, 1911 — Location in South Main street, established under an order of the selectmen granted to the Springfield and Eastern Street Railway Company under date of November 16, 1910, as amended by an order of said selectmen granted to the Springfield Street Railway Company under date of January 25, 1911. [8093]

Springfield, March 14, 1911 — Location for single track branch-off in St. James avenue near State street, established under an order of the board of aldermen dated October 31, 1910, as amended by an order of said board dated December 19, 1910. [8136]

Springfield, August 1, 1911 — Relocation in Plainfield street,

established under an order of the board of aldermen adopted July 10, 1911. [8416]

Springfield, October 31, 1911 — Location in State and Maple streets, established under an order of the board of aldermen dated May 8, 1911. [8511]

Springfield, October 31, 1911 — Location for a single track branch-off in Liberty street, established under an order of the board of aldermen dated May 22, 1911. [8512]

Springfield, October 31, 1911 — Location in Belmont avenue, established under an order of the board of aldermen dated March 6, 1911. [8513]

Westfield, May 26, 1911 — Location and relocation in Elm and Main streets, established under an order of the selectmen dated February 27, 1911. [8275]

Westfield, May 26, 1911 — Location for turnout in Pond road, established under an order of the selectmen dated March 1, 1911. [8276]

West Springfield, August 1, 1911 — Relocation in Church and Healy streets, established under an order of the selectmen adopted June 24, 1911. [8417]

*Templeton Street Railway Company.*

Templeton, January 16, 1911 — Location in the highway leading from East Templeton to Gardner, established under an order of the selectmen dated September 22, 1910. [8119]

*Union Street Railway Company.*

Fairhaven, January 12, 1911 — Location on the New Bedford and Fairhaven bridge near Main street, established under an order of the selectmen dated April 11, 1910, as shown on amended plan. [7740]

New Bedford, June 14, 1911 — Location in Ashland, Sawyer, Peckham and Myrtle streets, established under an order of the board of aldermen dated May 24, 1911. [8307]

New Bedford, June 14, 1911 — Location in Rivet street, established under an order of the board of aldermen dated May 24, 1911. [8308]

New Bedford, November 23, 1911 — Relocation in West French avenue, between Cove street and Cove road, established under an order of the board of aldermen dated October 25, 1911. [8542]

New Bedford, November 23, 1911 — Relocation in Pearl street,

between Purchase street and the easterly end of said street, established under an order of the board of aldermen dated November 9, 1911. [8566]

New Bedford, December 29, 1911 — Location in Acushnet avenue, Potomska street, South First street and Rivet street, established under an order of the board of aldermen adopted December 13, 1911. [8620]

*Ware and Brookfield Street Railway Company.*

Ware, December 26, 1911 — Relocation in West Main street, established under an order of the selectmen dated December 11, 1911. [8572]

West Brookfield, December 28, 1911 — Location on Pond Hill, established under orders of the selectmen and of the Massachusetts highway commission dated October 30, 1911, and December 27, 1911, respectively. [8571]

*West End Street Railway Company.*

Boston, January 12, 1911 — 338th location: alteration of easterly of existing tracks in Post Office square between Milk and Water streets, alteration of existing double tracks in Congress street from Water street to near State street, and alteration of single curved track entering Water street from the north, established under an order of the board of street commissioners dated December 13, 1910. [8126]

Boston, January 21, 1911 — 339th location: alteration of existing locations in Washington street, Haymarket square and Canal street, city proper (in substitution for the 267th location), established under an order of the board of street commissioners dated January 3, 1911. [8147]

Boston, February 2, 1911 — 340th location: alteration of existing double tracks in First street from L street to P street, established under an order of the board of street commissioners dated January 17, 1911. [8161]

Boston, February 23, 1911 — 341st location: alteration of the easterly of the existing tracks in Centre street, West Roxbury, at Lakeville place, established under an order of the board of street commissioners dated January 31, 1911. [8178]

Boston, March 10, 1911 — 343rd location: alteration of the southerly track in Boylston street, between the Public Garden entrance to the subway and Park square, and alteration of the single curves



entering Church street from the east and west, established under an order of the board of street commissioners dated February 7, 1911. [8190]

Boston, March 29, 1911 — 344th location: relocation of the existing double tracks and curves in Harvard avenue, Allston district, from the Brookline line to Cambridge street, and in Cambridge street at Harvard avenue, established under an order of the board of street commissioners dated February 28, 1911. [8209]

Boston, April 1, 1911 — 345th location: relocation of existing double tracks in Cambridge street, Brighton street, from east of Lincoln street to west of Highgate street, established under an order of the board of street commissioners dated March 7, 1911. [8213]

Boston, April 14, 1911 — 342nd location: relocation of existing cross connection in Bunker Hill street near Sullivan street, Charlestown district, established under an order of the board of street commissioners dated February 7, 1911;

346th location: additional cross connection in Bunker Hill street between Pine and Decatur streets, Charlestown district, established under an order of the board of street commissioners dated March 21, 1911. [8221]

Boston, May 3, 1911 — Extension of time to April 20, 1912, for completing work of construction under the 301st location, double tracks in Geneva avenue from Blue Hill avenue to Bowdoin street, established under an order of the board of street commissioners dated April 4, 1911. [8244]

Boston, May 10, 1911 — 347th location: relocation of existing curved tracks in Centre street, Roxbury and West Roxbury districts, from Amory street to South Huntington avenue, established under an order of the board of street commissioners dated April 4, 1911;

348th location: relocation of easterly of existing double tracks in Guild row at Dudley street, and relocation of existing curved tracks in Dudley street at east and west inclines and at Warren street, established under an order of the board of street commissioners dated April 4, 1911;

349th location: relocation of existing curved track in Eliot square, Roxbury district, near Highland street, established under an order of the board of street commissioners dated April 4, 1911. [8256]

Boston, May 22, 1911 — 350th location: relocation of existing

double tracks in Washington street, city proper, at Summer street, established under an order of the board of street commissioners dated April 25, 1911. [8263]

Boston, June 28, 1911 — 351st location: cross connection in Boylston street west of Massachusetts avenue, established under an order of the board of street commissioners dated May 16, 1911. [8345]

Boston, July 14, 1911 — 352nd location: alteration of existing single track and curves in Haverhill street, city proper, from Haymarket square to Causeway street, established under an order of the board of street commissioners dated June 20, 1911. [8372]

Boston, September 5, 1911 — 353rd location: relocation of existing double tracks in Centre street, West Roxbury district, established under an order of the board of street commissioners dated August 1, 1911;

354th location: relocation of existing double tracks in Dudley street, Roxbury and Dorchester districts, established under an order of the board of street commissioners dated August 1, 1911;

355th location: relocation of existing double tracks in Neponset avenue, Dorchester district, established under an order of the board of street commissioners dated August 1, 1911;

356th location: location for additional curved track in Washington street, West Roxbury district, south of Lotus place, established under an order of the board of street commissioners dated August 1, 1911. [8432]

Boston, October 10, 1911 — 357th location: relocation of existing tracks in Talbot avenue, Dorchester district, established under an order of the board of street commissioners dated August 22, 1911;

358th location: relocation of existing double tracks and curves in Boylston street at Berkeley street, established under an order of the board of street commissioners dated August 22, 1911;

359th location: relocation of existing tracks in Washington street, city proper, from the Boston and Albany railroad bridge to Broadway, and relocation of existing double tracks and curves at the southerly corner of Washington street and Broadway and in Broadway from Washington street easterly, established under an order of the board of street commissioners dated August 22, 1911;

360th location: relocation of existing double tracks and curves in Washington street, Roxbury district, in Columbus avenue and at the northerly corner of Columbus avenue and Washington street,

relocation of existing cross-connection in Washington street east of Columbus avenue, and location for additional curved tracks at the easterly corner of Columbus avenue and Washington street and a single curved track to property of the company there situate, established under an order of the board of street commissioners dated August 22, 1911;

361st location: relocation of the northerly of the existing curved tracks in Main street at Beacham street, Charlestown district, established under an order of the board of street commissioners dated August 22, 1911;

362nd location: location for four curved tracks in East First street, west of O street, South Boston district, established under an order of the board of street commissioners dated August 22, 1911;

363rd location: relocation of existing curved tracks in Bowdoin street at Geneva avenue and at the easterly corner of Bowdoin street and Geneva avenue, established under an order of the board of street commissioners dated August 22, 1911. [8465]

Boston, November 29, 1911 — 365th location: alteration of existing locations in Talbot avenue, from Washington street to Dorchester avenue, established under an order of the board of street commissioners dated October 10, 1911;

366th location: alteration of existing locations in Tremont street from the Pleasant street entrance to the subway to Roxbury crossing, and in Columbus avenue from Roxbury crossing to Centre street, established under an order of the board of street commissioners dated October 10, 1911;

367th location: alteration of existing locations in Main street, Charlestown, from the incline to the elevated to Beacham street, established under an order of the board of street commissioners dated October 10, 1911;

Extension of time to October 18, 1912, for completing work of construction under the 330th location (alteration of cross-connections in Huntington avenue from West Newton street to south of Massachusetts avenue), established under an order of the board of street commissioners dated October 10, 1911. [8567]

Boston, December 11, 1911 — 364th location: alteration of existing locations in Seaver street, Humboldt avenue and Walnut avenue, established under an order of the board of street commissioners dated October 10, 1911;

Alteration of existing location in Seaver street, established under

an order of the board of park commissioners dated November 23, 1911. [8586]

Boston, December 18, 1911 — 368th location: alteration of tracks in Tremont street near the carhouse, and location for additional curve track entering the carhouse yard, established under an order of the board of street commissioners dated November 14, 1911;

369th location: relocation of double tracks in Huntington avenue between Boylston and Dartmouth streets, of the northerly of the tracks in Huntington avenue at South Huntington avenue, of the easterly of the curved tracks in South Huntington avenue entering Huntington avenue and of the westerly of the curved tracks entering Centre street, established under an order of the board of street commissioners dated November 14, 1911;

370th location: relocation of double tracks in Berkeley street, between Boylston street and Columbus avenue, established under an order of the board of street commissioners dated November 14, 1911. [8597]

Boston, December 18, 1911 — 371st location: relocation of double tracks in Northampton street between Tremont street and Shawmut avenue, established under an order of the board of street commissioners dated November 28, 1911;

372nd location: location for two additional curved tracks in Mystic avenue, near Dorrance street, Charlestown, established under an order of the board of street commissioners dated November 28, 1911;

373rd location: relocation of tracks at the junction of Southampton street and Massachusetts avenue, Roxbury; of tracks in Dorchester street from Andrew square to Rogers street, in Dorchester avenue north and south of Andrew square, in Andrew square and in Boston street southerly from Andrew square, South Boston; and location for double tracks in Southampton street, between Massachusetts avenue and Andrew square, established under an order of the board of street commissioners dated November 28, 1911. [8605]

Brookline, January 12, 1911 — Location for poles in Harvard street, established under an order of the selectmen dated December 12, 1910. [8117]

Brookline, July 14, 1911 — Alteration of location of one pole on Reservoir road at its junction with Boylston street, established under an order of the selectmen dated June 26, 1911. [8372]

Brookline, July 21, 1911 — Location for thirty-six poles on Har-

ward street between Washington and Beacon streets, established under an order of the selectmen dated July 3, 1911. [8392]

Cambridge, January 12, 1911 — Relocation in Brookline street and Massachusetts avenue, established under an order of the board of aldermen dated December 6, 1910. [8113]

Cambridge, May 1, 1911 — Location for double curved tracks at the southerly corner of Prospect street and Broadway, established under an order of the board of aldermen dated March 7, 1911;

Alteration of location of existing tracks in Harvard square, Massachusetts avenue and Brattle street, and in Massachusetts avenue near Church street and at Garden street, and location for single track in Massachusetts avenue around the proposed park to Peabody street, established under an order of the board of aldermen dated March 7, 1911. [8208]

Cambridge, May 1, 1911 — Location for double and single tracks in Pearl street between Massachusetts avenue and Green street, single track in Green street between Pearl and Brookline streets, double and single tracks in Brookline street at its intersection with Green street, and curves at the easterly corner of Pearl and Green streets and at the northerly corner of Green and Brookline streets, established under an order of the board of aldermen dated March 28, 1911. [8228]

Cambridge, June 14, 1911 — Relocation of existing double tracks in Massachusetts avenue at Trowbridge street and between Plympton and Bow streets, established under an order of the board of aldermen dated May 23, 1911;

Alteration of existing locations in Massachusetts avenue at Cambridge street, at the subway entrance and at Garden street; in Cambridge street at the subway entrance, and in Garden street at Massachusetts avenue, established under an order of the board of aldermen dated May 23, 1911;

Alteration of existing double tracks in Eliot street, Eliot square, and Mount Auburn street, between Boylston street and Brattle square; and location for six additional curved tracks in Mount Auburn street between Eliot square and Mifflin place, established under an order of the board of aldermen dated May 23, 1911. [8320]

Cambridge, June 14, 1911 — Relocation of single curved track in Kendall square, connecting the southerly of the existing tracks in Main street with the northerly of the existing tracks in Broadway; relocation of single curved tracks in Broadway, west of Ken-

dall square, from the northerly and from the southerly of the existing tracks there situate to private land; and relocation of single curved tracks in Main street, west of Kendall square, from the northerly and from the southerly of the existing tracks there situate to private land, established under an order of the board of aldermen dated May 31, 1911. [8327]

Cambridge, July 1, 1911 — Alteration of existing double tracks in Bridge street from Lechmere square to west of Kelley square, together with an additional cross connection and additional double curved tracks to private land near Dailey avenue; additional double curved tracks in Cambridge street to private land near Dailey avenue, and additional cross connection west thereof, established under an order of the board of aldermen dated June 13, 1911. [8362]

Cambridge, October 25, 1911 — Relocation of existing tracks in Cambridge street, from Lechmere square to First street, from Third street to Columbia street, near Prospect street, near Hampshire street, at Baldwin street carhouse, and at Kirkland street to Peabody street; and in Bridge street from Kelley square to the Somerville line, established under an order of the board of aldermen dated October 10, 1911. [8514]

Chelsea, March 29, 1911 — Relocation of the existing double tracks in Hawthorn street from Pearl street to Broadway at Bellingham square, and location for cross connection in Hawthorn street southwest of Bellingham street, established under an order of the board of control dated March 10, 1911. [8210]

Everett, July 8, 1911 — Relocation in Chelsea and Ferry streets, established under an order of the board of aldermen dated June 19, 1911. [8366]

Malden, March 10, 1911 — Relocation in Cross and Main streets, established under an order of the board of aldermen dated February 20, 1911. [8194]

Malden, July 12, 1911 — Relocation in Pleasant street, from Main street to the location of the Boston and Maine railroad, established under an order of the board of aldermen dated June 27, 1911. [8381]

Malden, August 1, 1911 — Location for twenty-eight poles on Main and Pleasant streets, established under an order of the board of aldermen adopted July 18, 1911. [8414]

Somerville, May 3, 1911 — Location for cross-connection in Medford street south of Broadway, established under an order of the board of aldermen dated April 13, 1911. [8243]

Somerville, October 10, 1911 — Relocation in Holland street and Broadway, established under an order of the board of aldermen dated September 14, 1911. [8480]

Somerville, November 25, 1911 — Location for double tracks in Webster avenue from the Cambridge line to Union square, established under an order of the board of aldermen dated October 10, 1911;

Location in Newton street from Webster avenue to Concord square, established under an order of the board of aldermen dated October 26, 1911;

Location in Somerville avenue, Elm street and Holland street, from Medford street to Broadway, and in Medford street from Somerville avenue to Cross street, established under an order of the board of aldermen dated November 2, 1911. [8558]

Watertown, January 24, 1911 — Location for five poles in Main street, established under an order of the selectmen dated January 6, 1911. [8149]

*Worcester Consolidated Street Railway Company.*

Shrewsbury, November 1, 1911 — Relocation in the main highway between Worcester and Boylston, established under an order of the selectmen dated October 3, 1911. [8525]

Southbridge, October 3, 1911 — Relocation in Hamilton and Main streets, established under an order of the selectmen dated August 28, 1911. [8481]

Southbridge, October 3, 1911 — Relocation in Mill and River streets, established under an order of the selectmen dated August 21, 1911. [8482]

Worcester, January 12, 1911 — Location for conduits and poles in Madison street and Madison square, established under an order of the board of aldermen adopted November 28, 1910. [8104]

Worcester, January 12, 1911 — Location and relocation in Front street, Washington square, Grafton, Franklin, Summer and Shrewsbury streets, established under an order of the board of aldermen adopted November 28, 1910. [8105]

Worcester, July 22, 1911 — Location in Park street, Trumbull square, Green street, Franklin street and Trumbull street, established under an order of the board of aldermen adopted June 19, 1911. [8395]

Worcester, July 22, 1911 — Location in Park avenue, established under an order of the board of aldermen adopted June 19, 1911, [8396]

Worcester, July 22, 1911 — Location in Pleasant street, established under an order of the board of aldermen adopted June 19, 1911. [8397]

Worcester, October 31, 1911 — Location in Burncoat street, established under an order of the board of aldermen adopted July 31, 1911. [8441]

Worcester, November 1, 1911 — Location in Providence street, a proposed new street and Granite street, established under an order of the board of aldermen adopted September 18, 1911. [8524]

Worcester, December 29, 1911 — Location in Pleasant and Mower streets, established under an order of the board of aldermen adopted November 13, 1911. [8608]

*Worcester and Webster Street Railway Company.*

Webster, November 29, 1911 — Relocation in the state highway, established under an order of the Massachusetts highway commission dated October 18, 1911, and an order of the selectmen adopted November 6, 1911. [8568]

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PRIVATE LAND LOCATIONS.

Under the provisions of general laws the Board has during the year granted authority to various street railway companies to construct their railways in part upon private land for the purpose of avoiding undesirable grades and curves in the public highways and for other purposes incidental to the use of these highways, or avoiding the crossing of the railway with a steam railroad, these orders being based in each case upon evidence that public necessity and convenience demanded such action. A summary of these orders follows: —

*Berkshire Street Railway Company.*

Lee, November 16, 1911 — Near Pleasant street, for the purpose of maintaining a siding. [8377]

*Boston and Worcester Street Railway Company.*

Southborough, August 1, 1911 — For purposes incidental to the use of the highway, near White's Corner. [8420]

*Holyoke Street Railway Company.*

Holyoke, July 28, 1911 — For purposes incidental to the use of the highway. [8384]



*Interstate Consolidated Street Railway Company.*

North Attleborough, January 14, 1911 — For purposes incidental to the use of the highway. [8120]

*Lowell and Fitchburg Street Railway Company.*

Ayer, July 19, 1911 — For purposes incidental to the use of the highway. [8378]

*Worcester Consolidated Street Railway Company.*

Worcester, January 12, 1911 — Near Front and Canal streets, for purposes incidental to the use of the highway. [8105]

Worcester, December 29, 1911 — For purposes incidental to the use of the highway. [8608]

## LOCOMOTIVE ENGINES.

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SPARK ARRESTERS.

*Petition of the Breakwater Company for approval of installation and maintenance of spark arresters.*

After consideration, — it is

*Ordered*, That the approval of the Board, under the provisions of chapter 431 of the Acts of 1907, be hereby given to the installation and maintenance on locomotives of the Breakwater Company, of Lanesville, of spark arresters of the type submitted with the petition.

	Attest:	CHARLES E. MANN,
OCTOBER 16, 1911.	[7543]	<i>Clerk.</i>

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*Petition of the Wilson and English Construction Company, of Buzzards Bay, for approval of installation and maintenance of a spark arrester.*

After consideration, — it is

*Ordered*, That the approval of the Board under the provisions of chapter 431 of the Acts of 1907 be hereby given to the installation and maintenance on engines of the Wilson and English Construction Company, of Buzzards Bay, of spark arresters of the type submitted with the petition.

	Attest:	CHARLES E. MANN,
JANUARY 2, 1911.	[7543]	<i>Clerk.</i>

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WHISTLING.

*Petition of residents of Waltham relative to whistling on the Boston and Maine railroad between Waltham Highlands and Waverley stations.*

After notice and hearing and a view, — it is

*Ordered*, That the whistling of locomotives as a crossing signal on the Southern division of the Boston and Maine railroad on all

westbound trains approaching Lyman street, and on all trains approaching Beaver street in either direction, in the city of Waltham, be prohibited; it being understood, however, that the whistles shall be sounded whenever, upon approaching said crossings, there seems to be special occasion therefor to avoid accident.

The Board, by an order dated July 16, 1902, prohibited the whistling of locomotives as a crossing signal on eastbound trains approaching Lyman street in Waltham.

The Board makes no order with respect to the prohibition of whistling of locomotives as a crossing signal for Trapelo road and Lexington street in Belmont.

Attest:

CHARLES E. MANN,

*Clerk.*

JANUARY 7, 1911.

[8018]

## CERTIFICATES PRELIMINARY TO OPERATION — RAILROAD.

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*Petition of the New York, New Haven and Hartford Railroad Company for certificate preliminary to operation of a relocated and rebuilt portion of the Woods Hole branch of the Old Colony railroad.*

Examination having been made of a section of the Woods Hole branch of the Old Colony railroad as relocated and constructed just south of Buzzards Bay station in the town of Bourne, and extending from a point near and just north of the Monument river southwards to a point where the line as relocated and constructed joins the old line towards Woods Hole near Gray Gables station, a distance of approximately three thousand (3,000) feet;

And it appearing to this Board that by two certain orders of the county commissioners for the county of Barnstable, made on November 1, 1910, a certain portion of the highway (being the short way running from the junction of the Shore road, so called, in a northwesterly direction towards Monument river) crossing the relocated portion of the railroad at grade was thereby altered or relocated so that the same should cross the railroad as relocated by a substantial overhead bridge, as more particularly specified in the said orders; and it further appearing that the orders of the county commissioners have not yet been fully complied with, so that the operation of the relocated portion of the Woods Hole branch would establish a crossing at grade where the short way crosses the relocated railroad as aforesaid; and it also appearing that public convenience and necessity require the operation of the relocated railroad aforesaid, and this Board being satisfied that the said grade crossing will be temporary in its character and will be little used, — it is

*Ordered,* That the Board hereby certify that all laws relating to construction have been complied with, and that the railroad appears to be in a safe condition for operation.

And it is further

*Ordered*, That while the use of this grade crossing continues the company is at all times to maintain gates or a flagman during the hours when train service is in operation.

NOVEMBER 11, 1911.

Attest:

CHARLES E. MANN,

[8527]

*Clerk.*

CERTIFICATES      PRELIMINARY      TO      OPERATION —  
STREET RAILWAYS.

*Petition of the Boston Elevated Railway Company for certificate preliminary to operation of elevated railway at Sullivan square in the city of Boston.*

Examination having been made of a section of elevated railway of the Boston Elevated Railway Company in the city of Boston, — it is

*Ordered*, That the Board hereby certify that said section, consisting of elevated railway in the Charlestown district of the city of Boston, extending from a point in Main street, across the Charlestown playground and Alford street to the existing Sullivan square station of the Boston Elevated Railway Company, appears to have been constructed in accordance with the plans approved by the Board, and to be in a safe condition for operation.

Attest:                      CHARLES E. MANN,  
APRIL 12, 1911.      [8218]                      Clerk.

*Petition of the Boston Elevated Railway Company for certificate preliminary to operation of elevated railway in the Charlestown district of the city of Boston.*

Examination having been made of a section of elevated railway of the Boston Elevated Railway Company in the city of Boston, — it is

*Ordered*, That the Board hereby certify that said section, consisting of elevated railway of the Boston Elevated Railway Company in the Charlestown district of the city of Boston, extending from a point in Main street opposite the Charlestown playground to a point in Main street between Gardner and Haverhill streets, appears to have been constructed in accordance with plans approved by the Board, and to be in a safe condition for operation.

Attest:                      CHARLES E. MANN,  
MAY 27, 1911.      [8304]                      Clerk.

*Petition of the Boston Elevated Railway Company for certificate of operation of its railway in Boston.*

Examination having been made of certain additions to or modifications of portions of its elevated railway in the city of Boston between Dudley street, Roxbury, and Sullivan square, Charlestown, — it is

*Ordered*, That the Board hereby certify that said additions to or modifications of portions of its elevated railway, shown on location plans on file in this office as follows:—

Dudley street station — plan numbered 27584, approved April 22, 1910;

Northampton street station — plan numbered 28500, approved October 1, 1907;

Beach street station — plan numbered 28252, approved October 1, 1907;

South station — plan numbered 27749, approved September 14, 1909;

Rowes wharf station — plan numbered 29108, approved September 10, 1908;

State street station — plan numbered 27791, approved October 1, 1907;

Battery street station — plan numbered 27824, approved October 1, 1907;

North station — plan numbered 28083, approved September 10, 1908;

City square station — plans numbered 27629 and 27630, approved October 1, 1907;

Thompson square station — plan numbered 27653, approved October 1, 1907;

Sullivan square station — plan numbered 28035, approved October 5, 1908;

Washington street siding (near Dudley street) — plans numbered 26192 and 25220, approved March 6, 1907;

Commercial street siding (near North End park) — plans numbered 26198 and 26199, approved February 9, 1909;

Atlantic avenue siding (near Beach street and Essex street) — plans numbered 26197 and 27749, approved November 17, 1908, and September 14, 1909, respectively,

appear to have been constructed in accordance with said plans and to be in a safe condition for operation.

Attest:  
AUGUST 24, 1911.

CHARLES E. MANN,  
[8406] Clerk.

*Petition of the Boston Elevated Railway Company for certificate preliminary to operation of its railway in Causeway street in Boston.*

Examination having been made of a section of elevated railway of the Boston Elevated Railway Company in Causeway street in Boston, — it is

*Ordered,* That the Board hereby certify that said section, consisting of elevated railway in Causeway street in Boston, extending in said street from a point near Medford street to a point opposite the Boston and Maine railroad station, appears to have been constructed in accordance with plans approved by the Board, and to be in a safe condition for operation.

Attest: CHARLES E. MANN,

NOVEMBER 3, 1911.

[8548]

*Clerk.*

During the year, the Board, having made examinations of a part or the whole of the railways of various street railway companies, issued its certificates that all laws relating to construction had been complied with, and that they appeared to be in a safe condition for operation. A detailed list of these certificates follows:—

*Bay State Street Railway Company.*

Boston, September 6, 1911 — Double and single tracks in Washington street near Grove street and single curve track connecting the track in Grove street with the track in Washington street, West Roxbury district. [8421]

Gloucester, September 22, 1911 — Single track, in Essex avenue from Laurel street to Magnolia avenue. [8446]

Haverhill, September 23, 1911 — Double tracks in Water street from Came avenue to end of double track beyond Groveland street, the length of said track measured as single track being about 4,890 feet. [8446]

Haverhill, October 11, 1911 — Second track, 1,042 feet in length, and reconstruction of 430 feet of double track in Main street, between Fountain and Marshland streets, the total length of said track measured as single track being 1,902 feet. [8446]

Lawrence, September 22, 1911 — Single track in Lawrence street from Arlington street to the Methuen town line. [8446]

Lowell, October 10, 1911 — Single track extending in Stevens street from Parker street to Jenness street. [8493]



Salem, September 22, 1911 — Double track in Bridge street near Webb street, and single track curve into Webb street, the length of said track measured as single track being about 115 feet. [8199]

Taunton, November 1, 1911 — In Broadway, Winthrop, Cohannet, Weir and Main streets, double and single tracks, branch-off to carhouse, and turnouts; in West Water street, 57 feet of relocated single track near the Weir Stove Company and extension of single track from a connection with the track in operation southerly a distance of 675 feet. [8446]

(See also *Boston and Northern* and *Old Colony*.)

*Berkshire Street Railway Company.*

Dalton, January 6, 1911 — Single track and siding in Hinsdale road, extending from a point upon the main track in said road near its intersection with East Housatonic street southerly a distance of about 315 feet to a connection with the main track. [8116]

Egremont, May 23, 1911 — Single track extending from a connection with the former terminus of the railway in the main street in the village of South Egremont, westerly in said main street a distance of about 1,400 feet to the road leading to North Egremont. [8260]

Great Barrington, June 23, 1911 — Single track, extending from a junction with the line from Great Barrington to South Egremont, on private land a little west of the Middle road from Great Barrington to Sheffield, thence southerly over private land adjoining the New York, New Haven and Hartford railroad about 1.29 miles to the Sheffield town line. [8317]

Pittsfield, June 7, 1911 — Single track in East and Elm streets, from a connection with other track of the company in East street near its intersection with Elm street to a point in Elm street about fifty feet north of the north line of Marcella avenue (with the exception of a distance of about two hundred feet in Elm street where the track crosses the Housatonic river, at which point a new bridge is being built), the length of said track being about 5,927 feet. [8313]

Sheffield, June 23, 1911 — Single track, from the Great Barrington town line, on private land adjoining and parallel to the New York, New Haven and Hartford railroad, southerly about 2.31 miles to the Middle road, thence southerly, crossing Middle road and along the east side of the same about 1.28 miles to a point in the main street in Sheffield nearly opposite the Sheffield passenger

station of the New York, New Haven and Hartford railroad. [8317]

Sheffield, August 1, 1911 — Single track, extending from a connection with the railway in Main street in Sheffield Center, nearly opposite the New York, New Haven and Hartford railroad station, in the main street or highway and over private land to a point opposite the railroad station in the village of Ashley Falls, a distance of about 3.73 miles. [8400]

Sheffield, October 10, 1911 — Single track, extending southerly from a connection with the railway on right of way of the New York, New Haven and Hartford railroad at a point opposite the northerly end of the station at Ashley Falls, across a travelled way near said station, over said right of way, and a private crossing, a distance of one-half mile, and over private right of way adjoining and easterly of the New York, New Haven and Hartford railroad location a distance of one-half mile to the Connecticut state line, a total distance of one mile. [8451]

*Boston and Northern Street Railway Company.*

Andover, April 11, 1911 — Double tracks in Main street from Chapel street near School street to a point about 250 feet southerly of Hidden road. [8199]

Dracut, June 23, 1911 — Single track, 700 feet in length, on private land, from a point about seven hundred feet west of the Methuen town line to said town line. [8328]

Groveland, April 11, 1911 — Single track and turnout in the state highway known as Main street, between stations 59 and 65. [8199]

Haverhill, April 11, 1911 — Double tracks in Merrimack street, between Washington square and a point near the junction of Main and Merrimack streets; double tracks in Main street between Marshland street and Walnut square and between Monument square and Fountain street, and single and double tracks in Groveland street, between Water and Keeley streets. [8199]

Lawrence, April 11, 1911 — Double tracks in Broadway from Essex street to the Methuen line and single track in Lawrence street from Common street to Haverhill street. [8199]

Lowell, April 11, 1911 — Double tracks in Middlesex and Branch streets from near Howard street to Nichols street; double tracks in Middlesex street between Wilder street and Baldwin street, and double tracks in Merrimack street between Dutton street and Tilden street. [8199]

Methuen, June 23, 1911 — From the Dracut line easterly over private land, 6,615 feet of single track and 395 feet of siding. [8328]

Newbury, April 11, 1911 — Relocated track and turnout in Elm and Middle streets, near the Dummer Academy. [8199]

Reading, May 8, 1911 — Double tracks in John street, opposite the car house, and two double track branch-offs to the company's property. [8199]

Revere, May 8, 1911 — Left-hand crossover and two single track branch-offs to the company's car house in Broadway between Parkway and Fernwood avenue. [8199]

Salem, May 22, 1911 — Double tracks in Lafayette street and Loring avenue, 6,605 feet measured as single track; and single and double tracks in Loring avenue from the Boston and Maine railroad crossing to street railway pole C/3568, 1,272 feet measured as single track. [8199]

Stoneham, May 8, 1911 — Single track and turnout in Elm street between Main street and the Wakefield town line. [8199]  
(See also *Bay State* and *Old Colony*.)

*Boston and Worcester Street Railway Company.*

Framingham, September 5, 1911 — Double tracks extending in Worcester street, from a point near Cross street, and in Pleasant and Main streets to a point in Main street about one hundred feet south of Central square, the length of said track measured as single track being about 4,500 feet. [8426]

Framingham, December 14, 1911 — Relocated track in Worcester street, from a point fifty feet east of Cross street to a point about one hundred fifty feet west of Winter street, the length of said track measured as single track being about 900 feet. [8426]

Southborough, September 22, 1911 — Siding, 350 feet long, located partly on the highway and partly on private land at White's corner, opposite the Sudbury reservoir, and connecting with the westbound main line track in Worcester street and with the single track in White Bagley road. [8455]

*Connecticut Valley Street Railway Company.*

Deerfield, August 3, 1911 — Single track, extending from a connection with other track of the company at a point in the highway where the Sunderland road and the Hatfield road unite near the foot of Mount Sugarloaf in South Deerfield, in the road leading

to Sunderland and upon land of the Mount Sugarloaf state reservation, a distance of about four hundred seventy-five feet. [8394]

Northampton, August 25, 1911 — Single track extending in Bridge street from a point about sixty-five feet easterly of Day avenue to a point about thirty feet south of North street, the length of said track being about eight hundred feet. [8419]

*Haverhill and Amesbury Street Railway Company.*

Amesbury, July 25, 1911 — Single track, 170 feet in length, and turnout, 110 feet in length, in the state highway known as Elm street. [8398]

Salisbury, July 25, 1911 — At Salisbury square, extension of turnout in the highway leading from Salisbury to Newburyport, a distance of 190 feet, and turnout, 310 feet long, in the highway leading from Salisbury to Amesbury. [8399]

*Holyoke Street Railway Company.*

Holyoke, February 2, 1911 — Double tracks and crossover in High street from a point about one hundred and ten feet east of the east line of Appleton street southwesterly a distance of 243 feet, and double tracks in Appleton street from a connection with the double tracks in High street a distance of 455 feet to a connection with the single track line in said Appleton street between Maple and Chestnut streets. [8141]

Holyoke, February 2, 1911 — Relocated single track and turnout in Brown avenue near Chapin square. [8142]

Holyoke, November 20, 1911 — Turnout, 360 feet in length, on private land opposite the grounds of the Holyoke Country Club. [8521]

South Hadley, November 20, 1911 — Turnout, 311 feet in length, in College street opposite Rockefeller Hall. [8521]

*Interstate Consolidated Street Railway Company.*

Attleborough, August 31, 1911 — Single track extending from a connection with the present track in South Main street near Thurbur avenue, in South Main street relocated, to a connection with the track in said street near the Atwell place, the length of said track being about 2,048 feet. [8444]

North Attleborough, June 8, 1911 — Crossover, 260 feet long, in Elm street from a point about one hundred forty feet south of

Oak street southerly to private land, and on private land to a connection with the Attleborough Branch railroad, the length of track on private land being about 194 feet. [8285]

*Lowell and Fitchburg Street Railway Company.*

Westford, November 8, 1911 — Relocated single track at Gregg's corner in the village of Graniteville. [8545]

*Milford, Attleborough and Woonsocket Street Railway Company.*

Franklin, September 21, 1911 — Single track, 350 feet in length, and turnout, 300 feet in length, in Main street opposite Depot street. [8427]

Franklin, September 21, 1911 — Single track extending in the state highway, known as Central street, from a point about one hundred feet east of the fire engine house easterly a distance of about 1,440 feet to private land, and from a point where the track comes back on Central street easterly a distance of about 2,420 feet to a point about three hundred feet west of Beaver street. [8429]

Franklin, October 2, 1911 — Siding, extending from a point in Central street, on the bridge over a brook, into a private way leading to the company's power station, the length of said track being about 110 feet. [8428]

*Milford and Uxbridge Street Railway Company.*

Hopedale, October 11, 1911 — Relocated single track extending in Main street from a point near the Milford town line southwesterly a distance of about 900 feet to a turnout. [8314]

Mendon, October 11, 1911 — Relocated single track extending from a point in the highway opposite Nipmuc Lake southwesterly a distance of about 880 feet, in part on private land, to its original location. [8314]

Milford, October 11, 1911 — Single track extending by a curve from a point on the main line in Main street in a westerly direction a distance of about 150 feet, one hundred feet being located on private land. [8323]

*Northampton Street Railway Company.*

Northampton, November 22, 1911 — Second track, on private land, extending from a point where the main track crosses Maple street southerly a distance of about 3,200 feet to a connection with the main track near the east line of Maple street. [8556]

*Old Colony Street Railway Company.*

Brockton, January 27, 1911 — Single track and turnout in Pleasant street between North Warren avenue and Spring street. [7982]

Brockton, June 8, 1911 — Single track in Torrey street, from Mill pond to turnout near Rockland street and from Rockland street to a connection with the present double track at the car barn; second track in Torrey street, from a connection with the single track at a point one hundred eighty feet west of West street to a connection with the present double tracks near the car barn; double track branch-offs in Torrey street at West street; single track branch-off in Torrey street at a point about two hundred eighty feet west of West street; and two single track branch-offs in Belmont street adjoining the company's property near West street. [8200]

Dedham, May 8, 1911 — In Washington street, near the Boston line, 197 feet of relocated single track and six feet of additional second track; and 2,176 feet of single track in Washington street between Bryant and Prospect streets. [8200]

Hyde Park, January 27, 1911 — Double tracks and crossover in Hyde Park avenue at the Boston line. [7982]

Quincy, May 8, 1911 — Turnout and 323 feet of relocated single track in Squantum street near Ocean street. [8200] (*See also Boston and Northern and Bay State.*)

*Point Shirley Street Railway Company.*

Winthrop, June 8, 1911 — Single track in Shirley street from a point near the southerly side of Washington street a distance of 110 feet to a point opposite the Winthrop Beach station. [8236]

*Springfield Street Railway Company.*

Brimfield, January 3, 1911 — Turnout, 659 feet long, on private land about one-half mile east of the Monson boundary line. [8112]

Chicopee, August 31, 1911 — Single track extending in Belcher street, near Broadway, and in East street to a point near Victoria park, the length of said track being about 3,100 feet. [8449]

Chicopee, December 7, 1911 — Turnout, 218 feet long, in Center street, Market square and Springfield street, from Exchange street to the city hall. [8553]

Ludlow, December 26, 1911 — Single track, from a point upon

the Ludlow avenue bridge over the Chicopee river, at the Springfield boundary line, northerly in Ludlow avenue, East street, Sewall street and Winsor street to a point opposite Franklin street, the length of said track being about 4,468 feet. [8606]

Palmer, April 1, 1911 — Single track in North Main street from a point just east of the Point of Rocks westerly a distance of about 1,850 feet to the Springfield road. [8197]

Palmer, June 8, 1911 — Single track siding in South Main street from a point on the main line westerly a distance of 183 feet to private land. [8268]

Springfield, July 21, 1911 — Single curved track at the corner of Eastern avenue and Alden street. [8254]

Springfield, August 25, 1911 — Single track branch-off connecting with other tracks of the company in St. James avenue, nearly opposite the junction of State street, St. James avenue and Magazine street, and extending in said avenue to the grounds of the United States arsenal, a distance of seventy-four feet. [8318]

Springfield, October 11, 1911 — Double tracks in Plainfield street from a point opposite John street to the east side of the bridge over the Boston and Maine railroad, a distance of about 800 feet. [8464]

Springfield, December 12, 1911 — Double tracks from State street into Maple street, and in Maple street a distance of 213 feet. [8577]

Springfield, December 14, 1911 — Double tracks in Belmont avenue from near Mill street and Fort Pleasant avenue southerly a distance of about 1,442 feet to the single track line in Belmont avenue. [8589]

Springfield, December 14, 1911 — Single track extending from the track in Liberty street opposite Murray Hill avenue easterly and southerly a distance of 49 feet to the south line of Liberty street. [8590]

Springfield, December 26, 1911 — Double and single tracks, extending in Main street and Ludlow avenue from a connection with other tracks in Main street nearly opposite Ludlow avenue to a point upon the bridge over the Chicopee river at the Ludlow boundary line. [8607]

Westfield, June 23, 1911 — Turnout, 313 feet long, in Pond road, northerly from a point in the highway about two hundred feet north of the stone arch bridge over the New York, New Haven and Hartford railroad. [8319]

Westfield, October 11, 1911 — Single track in Main street from Clinton street westerly a distance of about 912 feet, thence double tracks a distance of 210 feet, thence a single track "Y" turning north and south into Elm street, connecting with the northbound track in Elm street, and a single curved track extending from the track in Main street at a point a short distance east of the New York, New Haven and Hartford railroad bridge a distance of about 89 feet to the south line of Main street. [8442]

West Springfield, October 11, 1911 — Single track extending in Church street from a point a short distance westerly of Westfield street to Healy street, and in Healy street a distance of about twenty feet south of the south line of Church street. [8450]

*Union Street Railway Company.*

Fairhaven, January 18, 1911 — Crossover, 77 feet long, on the New Bedford and Fairhaven bridge near Main street. [8025]

New Bedford, June 8, 1911 — Single track, 194 feet in length, in Durfee street from Ashland street to a connection with the tracks opposite the Mount Pleasant car barn. [8300]

New Bedford, November 28, 1911 — Single track, extending in Ashland street from south of Clark street to Sawyer street, thence in Sawyer street easterly a distance of 3,900 feet, in Peckham street from Ashland street easterly to Myrtle street, thence in Myrtle street northerly to Sawyer street. [8483]

*Ware and Brookfield Street Railway Company.*

Ware, December 26, 1911 — Relocated single track in West Main street, from opposite Storrs street to a point midway between Barnes and Vernon streets. [8573]

West Brookfield, December 28, 1911 — Two crossovers on Pond Hill. [8573]

*West End Street Railway Company.*

Boston, July 27, 1911 — Single track loop, 450 feet long, at Hyde square, Jamaica Plain district. [8408]

Boston, December 8, 1911 — Double tracks in Geneva avenue from Bowdoin street to Blue Hill avenue. [8595]

Cambridge, July 21, 1911 — Double tracks in Main street from Kendall square to the Cambridge bridge, including special work at Broadway, the length of said track measured as single track being about 2,828 feet. [8291]

Somerville, December 8, 1911 — Double tracks in Webster ave-



nue between Union square and a point about one thousand feet north of Cambridge street, and single track in Newton street, from its junction with Webster avenue. [8596]

*Worcester Consolidated Street Railway Company.*

Shrewsbury, November 22, 1911 — Relocated single track in Boylston street, extending northeasterly from a point about three hundred feet north of the Worcester boundary line a distance of about 3,200 feet. [8563]

Southbridge, December 7, 1911 — Relocated track in Hamilton street, from the junction of Main, Mill, West and High streets in a southwesterly direction a distance of about 300 feet. [8555]

Southbridge, December 14, 1911 — Single track, extending across Main street, over private land, across Mill street and over private land; across Main street, near West street, over private land and upon a coal trestle; across Hamilton street, over private land, crossing River street and on the northeasterly side of said street to a connection with the New York, New Haven and Hartford railroad; turnout, 240 feet long, in Hamilton street, all in Globe village. [8222, 8554]

Southbridge, December 23, 1911 — Relocated track in Hamilton street from a point about seventy-five feet east of Oliver street westerly a distance of about 600 feet. [8555]

Worcester, January 3, 1911 — Double tracks in Shrewsbury street from East Central street to East Worcester street, a distance of 1,102 feet. [8123]

Worcester, October 27, 1911 — Double tracks in Pleasant street from June street to Lenox street, a distance of 3,050 feet. [8523]

Worcester, November 22, 1911 — Special work in Front street from a point about fifty feet west of Canal street to Washington square, tracks under the viaduct connecting with this special work, and 65 feet of special work in Grafton street at its junction with Franklin street. [8564]

Worcester, November 22, 1911 — Second track in West Boylston street from a point about seventy-five feet north of Barbers crossing northerly a distance of about 3,061 feet to where it connects with a turnout. [8565]

Worcester, December 7, 1911 — Double tracks in Park avenue, from Chandler street to Pleasant street, and crossover, 60 feet in length, in Park avenue south of Chandler street. [8585]

Worcester, December 19, 1911 — Single track in Burncoat street, from North avenue northerly a distance of about 4,100 feet. [8598]

## RETURNS — RAILROAD AND RAILWAY.

*Application of the Boston and Lowell Railroad Corporation for extension of time for filing its annual return.*

After consideration, and for good cause shown,—it is

*Ordered*, That the time for filing the annual return of the Boston and Lowell Railroad Corporation be hereby extended, under the provisions of section 1 of chapter 502 of the Acts of 1909, to Monday, October 9, 1911.

Attest: CHARLES E. MANN,  
SEPTEMBER 22, 1911. [8484] Clerk.

Similar orders were issued extending the time for filing the annual returns of the following companies:

Boston and Maine Railroad  
Nantucket Railroad Company  
Nashua and Acton Railroad Company  
Nashua and Lowell Railroad  
Norton and Taunton Street Railway Company.

[8484]

## STATIONS AND STATION ACCOMMODATIONS.

## RAILROAD.

*Petition of residents and business houses of Cambridge relative to the construction of a subway or overhead bridge at Cambridge station on the Boston and Maine railroad in the city of Cambridge.*

The station known as the Cambridge station, on the Fitchburg division of the Boston and Maine railroad, serves an increasing number of travellers, especially daily patrons. The railroad at this point is four-tracked and approaches the station from the west upon a curve. Another approach to the trains in addition to the station approach is secured by a connection on the other side of the tracks by a platform with steps from Somerville avenue.

The four-track location, together with the present uses of the station and its location with respect to the tracks, leads the Board to recommend the installation of an overhead structure or a subway. By virtue of the elevation of the station structure upon the one side and the avenue upon the other, it is somewhat doubtful whether an overhead structure or a subway would afford the larger convenience to the whole travelling public. We are content, therefore, with the recommendation that the situation demands the installation of either one or the other, and request the Boston and Maine Railroad to prepare plans for a subway and for a bridge, and submit the same to the Board as early as practicable. With these studies before us a final ascertainment can be made of the better method of remedying the situation.

The studies submitted should include adequate provision for fencing between the tracks, to the end that when the structure is installed it shall be the exclusive method of passenger communication from the platforms to the trains.

By the Board,

CHARLES E. MANN,

JUNE 29, 1911. [8312]

Clerk.

Pursuant to the recommendation of the Board, under date of June 29, 1911, the Boston and Maine Railroad has submitted plans showing a subway and an overhead bridge at its Cambridge station. After examination of these plans, the Board is of opinion that an overhead bridge is preferable at this station, and approves the construction by the Boston and Maine Railroad of a footbridge over the tracks of its railroad at the Cambridge station, in accordance with plan submitted, and the erection of a suitable fence between the inbound and outbound tracks.

For the Board,

CHARLES E. MANN,

NOVEMBER 3, 1911. [8312]

Clerk.

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*Petition of the residents of Dorchester Centre relative to the relocation of Field's Corner station on the New York, New Haven and Hartford railroad in the city of Boston.*

The Field's Corner station, so called, on the New York, New Haven and Hartford railroad, is in process of relocation under the provisions of a decree of the Superior Court confirming commissioners' report in the matter of separation of grades of certain highways and the New York, New Haven and Hartford railroad.

Prior to the decision of the court confirming the commissioners' report, the New York, New Haven and Hartford Railroad Company and the Old Colony Railroad Company petitioned the Board for a certificate approving the plan of the special commission appointed by the court for abolishing crossings of highways and railroad at grade in the Dorchester district in the city of Boston. After public notice and hearing the Board, on August 12, 1907, approved the plan of the special commission, including among other things the relocation of the Field's Corner station. The present work is being performed, therefore, by decree of the Superior Court confirming the report of the commissioners, after the certificate of the Board. In view of the foregoing situation the petition must be dismissed.

For the Board,

CHARLES E. MANN,

JUNE 5, 1911. [8258]

Clerk.

*Petition of residents of Neponset and of the Neponset Improvement Society relative to the relocating of the station at Neponset on the New York, New Haven and Hartford railroad.*

GEORGE E. CURRY for petition.

MATTHEW CUMMINGS for Neponset Improvement Association.

B. T. WHEELER for New York, New Haven and Hartford Railroad Company.

The Superior Court for the county of Suffolk, upon due proceedings, has heretofore appointed a special commission which has decided that the security and convenience of the public require alterations, including the changes of private ways and the discontinuance of public and private crossings and the building of new ways in substitution therefor, to be made in certain crossings and the New York, New Haven and Hartford railroad at grade.

Among the grade crossings so eliminated was Walnut street, Neponset. The method reported by the special commission discontinued that portion of Walnut street at grade over the crossing of the railroad and substituted a new way therefor. The way so substituted is about six hundred feet from the location of the passenger station at Neponset. The special commission further decided that a foot subway should be erected under the tracks in partial substitution for Walnut street, with stairways upon either side of the railroad location, so securing approaches from the subway to the ground level. No change was ordered by the commission in the location or arrangement of the Neponset passenger station.

Thereafter a petition was brought before the Board for a certificate approving the plan of the special commission, including the discontinuance of Walnut street, the new way in substitution therefor and all its other findings. This proceeding was brought under the provisions of Acts of 1906, chapter 463, part I, section 43, which provides, among other things, that a final decree shall not be entered by the Superior Court upon any report of commissioners setting forth a plan for the abolition of grade crossings until the board of railroad commissioners, after a hearing, shall have certified in writing "that in their opinion the adoption of such plan and the expenditure to be incurred thereunder are consistent with the public interests." Upon this petition the Board made its decision, dated August 12, 1907. The concluding paragraph was as follows:

No plan for abolishing grade crossings can be devised that will not arouse opposition from private interests that are necessarily invaded. The plan which is presented in this instance is one which upon the whole accomplishes the largest possible benefit with the least interference with private property and is therefore approved.

This finding was an adjudication by the Board that the adoption of the plan was consistent with the public interests. Thereafter the work of separating the grade at Walnut street and the construction of a new way in substitution therefor went forward. Recently, as a result of the improvements contemplated and in process by the New York, New Haven and Hartford Railroad Company, the station structure at Neponset has been moved a few feet from its former location and reinstalled in the new location. It is further proposed by the company to erect and maintain another passenger station at Neponset, on the other side of the tracks, opposite the present structure. After the present passenger station was relocated and pending the construction of the new passenger station, the petitioners filed this petition on June 2, 1911. Briefly restated it requests that the Board recommend to the company the relocation of the station at Neponset "at or near the new street now being built over their roadbed."

At the hearing it appeared that the company is proposing to four-track its roadbed to Neponset, and in connection with its Shawmut branch maintain crossovers and switches at or near the highway bridge upon the new way. Any relocation of the present Neponset station should secure an equal amount of safety to the travelling public that the improvements at the present Neponset station will secure. In other words, passenger facilities in substitution of those to be installed at Neponset should include a station upon either side of the track, with proper fence protection between the tracks and convenient means of access from one station to the other. In order to secure this at the proposed relocated site it will be necessary to build two stations, each a double story structure, and to make some arrangement, if possible, for fencing between the tracks without interference with train movements on the branch.

After the hearing the Board visited the locality, and has carefully studied the whole situation. Assuming for the purposes of this case only, that we have jurisdiction to recommend the changes asked for and that the petitioners have been diligent in their application, we are unable to make the recommendation desired. In making this finding we must hold that the decision of the Board

on August 12, 1907, and the confirmation of the report of the special commissioners by the Superior Court is a declaration that the public interest was properly conserved as of that date. We find nothing in the situation at Neponset, including therein the rearrangement of the streets, the present distribution of mercantile and residential structures or any anticipated material changes, that leads us to the conclusion that the situation has so far changed that the maintenance of the present passenger station structure and the proposal for a new passenger station structure opposite are inconsistent with the public interests. While we have made a rough estimate of the cost of the installation of new station structures and the salvage value of the property to be abandoned for station uses, we have reached our conclusions upon other grounds. The safety and convenience of operation, including the present highway approaches to the existing station, to our mind, make the present location the preferable one. We therefore make no recommendation to the company to relocate its Neponset station.

For the Board,

CHARLES E. MANN,

JULY 25, 1911.

[8324]

Clerk.

*Complaint of citizens of Barnstable county as to conditions at the Buzzards Bay station in the town of Bourne.*

Upon the petition of the selectmen of Bourne relative to protection at crossings of the New York, New Haven and Hartford railroad in that town, on December 5, 1910, the Board issued its order. So much of said order as refers to the crossing at Buzzards Bay station is as follows:

The other crossing named in the petition is a travelled way used as an approach to the passenger station and freight house of the company at Buzzards Bay. The peculiar location of the station and freight house requires that the main line from Provincetown must be crossed at grade by all passengers and for visits to the freight house. While it is understood that important changes are contemplated in the location at this point, it appears that some protection is required at this time, and the Board recommends that a flagman be installed at the present travelled way, or at such other point of approach as the company may designate, and that sufficient protection by fences or otherwise should be afforded to prevent passengers and others from crossing the

tracks to the station and freight house at points other than the travelled way where the flagman shall be installed.

Thereafter the company installed a flagman at the travelled way, and closed up an opening in the fence between the railroad and the highway. This opening had formerly been used by foot travellers to and from the station.

The selectmen of Bourne and a number of summer residents who use the Buzzards Bay station have requested that the Board give further consideration to so much of its order as relates to the closing of the opening in the fence, alleging that the approach to the station is most accessible through said opening, and that travellers by foot and vehicle are now in large degree discommoded.

With the suggestion that the most accessible way of approaching the station is through the opening in the fence the Board is in accord; but it deems that the public interest requires no recommendation with respect to the reopening of the fence without at the same time securing adequate protection to the travelling public, for it is of opinion that this means of passage to and from the station presents elements of danger unless due warning is given of the approach of trains. The Board therefore supplements its order of December 5, 1910, by the following recommendation: That the New York, New Haven and Hartford Railroad Company cause to be made an approach between its railroad station and the highway, at or near the former opening, and that due and reasonable warning be given of the approach of all trains in either direction.

By the Board,

CHARLES E. MANN,

FEBRUARY 6, 1911. [8020]

*Clerk.*

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*Petition of residents of New Bedford for construction of a station on the New York, New Haven and Hartford railroad at Weld street in New Bedford.*

JOSEPH T. KENNEY for petitioners.

F. A. FARNHAM for railroad company.

The petitioners request that the Board recommend the construction of a passenger station on the New York, New Haven and Hartford railroad at Weld street in the city of New Bedford.



New Bedford is a terminal city, with a terminal railroad station situated at some distance from the proposed location of the station at or near Weld street. During the past few years the north end of the city has shown a very large growth in population and in industrial enterprises. This section is somewhat removed from the site of the terminal station, and a small passenger station for the uses proposed by the petitioners could no doubt be erected at or near Weld street at no great expense.

But this is not the whole situation nor by any means an important part of it. Not the north end alone, but other sections of the city have shown a large growth in population and in industrial enterprises. Unfortunately railroad facilities, both freight and passenger, have failed to keep step with the progress of the city itself.

Present transportation deficiencies in the city may be said to be partly due to the site of the terminal passenger station, in that this station is not well nor conveniently located. Without undertaking to determine a proper location or to discuss the character and design of such a station, it is enough to intimate that transportation facilities as a whole in New Bedford should be materially increased, and a study to this end should be forthwith initiated and seasonably prosecuted, including in the consideration freight terminals and industrial sidings.

Being unable, therefore, pending the completion of this study, to finally determine a proper location for the terminal passenger station in New Bedford, we deem it upon the whole unwise to prejudice the situation in any degree by now recommending the location of the station petitioned for, for the reason that such location might be temporary, and we have no present assurances that in any view of the situation it would properly co-ordinate with a scheme of transportation development in New Bedford. Proposals for a through line from Fall River to the Cape and other improvements have already reached the initiatory stages and will doubtless have an important bearing upon any developed transportation scheme.

We therefore recommend that the New York, New Haven and Hartford Railroad Company immediately proceed to preliminary studies and the preparation of plans, to carry into effect the foregoing suggestions with respect to improved facilities in New Bedford.

In making this recommendation we ask the co-operation of the public authorities and the citizens of the city, and are content to abide their action in the premises, with the understanding, however,

that if the matter does not proceed with reasonable speed the Board reserves the right to make more specific recommendations, and further reserves the right, if occasion should require, to install a temporary or permanent station at or near the point suggested by the petitioners or at some other point in the north end of the city.

By the Board,

CHARLES E. MANN,

JULY 21, 1911. [S226]

Clerk.

*Petition of residents of West Stockbridge relative to conditions at the State Line station in that town.*

After consideration, examination having been made of a plan showing proposed re-arrangement of tracks of the New York, New Haven and Hartford railroad at State Line station in Massachusetts, said re-arrangement as shown in red upon said plan is hereby approved.

Attest:

CHARLES E. MANN,

SEPTEMBER 29, 1911. [8005]

Clerk.

*Report of the Board on an act of the general court relative to station at South Worcester junction in the city of Worcester.*

GEORGE L. MAYBERRY for Boston and Albany Railroad Company.

B. T. WHEELER for New York, New Haven and Hartford Railroad Company.

E. H. VAUGHAN for City of Worcester.

The general court of 1911, adopted an act, chapter 528, approved June 6, 1911, as follows:

SECTION 1. The New York, New Haven and Hartford Railroad Company and the Boston and Albany Railroad Company shall maintain a union station, or separate stations, at or near South Worcester junction, so called, unless the board of railroad commissioners shall, after a hearing, find that a decrease or discontinuance of facilities for passengers is necessitated by the relocation of the tracks in said locality under chapter three hundred and eighty-seven of the acts of the year nineteen hundred, and acts in amendment thereto; or unless the board, after a hearing, finds that public convenience and necessity do not require station facilities for passengers at this place.

SECTION 2. This act shall take effect upon its passage.

Under section 1 of the above act, after a public hearing, view and further consideration, the Board does not find that a decrease or discontinuance of facilities for passengers is necessitated by the relocation of the tracks in said locality, neither does it find that public convenience and necessity do not require station facilities for passengers at this place.

For the Board,

CHARLES E. MANN,

DECEMBER 1, 1911.

[8409, 8423]

Clerk.

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#### STREET RAILWAY.

*Report of the Board on an order of the general court relative to protection at stations of the Boston Elevated Railway Company.*

*To the Honorable the Senate and the House of Representatives:*

On April 12, 1911, the house of representatives

*Ordered,* That the board of railroad commissioners is hereby requested to investigate the means employed, or that should be employed, to protect from injury passengers at the stations of the Boston Elevated Railway Company, and especially to consider whether a railing or other form of protection is necessary to protect the passengers from falling into the pit at said stations. The Board shall ascertain, so far as is practicable, the dimensions of the platforms at said stations, the number of persons using such stations, at rush hours especially, the number and character of the accidents that have occurred therein, including deaths and suicides, and the means used elsewhere, or otherwise available, to protect passengers from such injury. The Board shall report to the general court not later than the fifteenth day of May in the current year, with their recommendations.

This order was adopted in concurrence by the honorable the senate on April 18, 1911, and on April 20 a copy thereof was transmitted to the board of railroad commissioners. The Board thereupon proceeded to make the investigation required by the order, and on May 16 addressed a communication to the honorable senate and house of representatives requesting additional time for report, and suggested June 1 as a proper and seasonable date therefor, in view of the fact that certain information required by the general court was not available in season to report upon the order within the time limit.

The order may be properly divided into two parts: first, an investigation of existing conditions in Boston and elsewhere; second, such recommendations, if any, as may be found practicable and feasible in the premises. Under the first division the information desired may be summarized as follows:—

A. The means employed to protect from injury passengers at the stations of the Boston Elevated Railway Company.

B. The dimensions of the platforms at said stations.

C. The number of passengers using said stations, at rush hours especially.

D. The number and character of accidents that have occurred therein, including deaths and suicides.

E. The means used elsewhere or otherwise available to protect passengers from such injury.

This information, in large measure in the possession of the Boston Elevated Railway Company, has been returned to the Board by the company upon request, and is found in the accompanying exhibits, viz.:—

A 1. Letter dated May 2, 1911, from C. S. Sergeant, vice-president, in charge of operation.

A 2. Statement of number of persons using subway stations from 6.30 to 9.30 A.M. and from 3.30 to 6.30 P.M., April 27, 1911, and the East Boston tunnel stations between the same hours on the same date.

A 3. Statement of passengers on trains leaving Dudley street, northbound, April 27, 1911; passengers on trains arriving at Dudley street, southbound, on the same date; passengers on trains leaving Sullivan square on the same date; passengers arriving at Sullivan square on the same date.

A 4. Count of passengers using the elevated division stations during rush hours, Thursday, April 27, 1911.

A 5. Statement of the number of men employed in operation of cars at subway and East Boston tunnel stations during rush hours on week days (exclusive of entrance guards and ticket collectors), and additional information requested by the Board (letters May 27, 29, 1911).

A 6. Memorandum of serious accidents to passengers in pits of stations of the Boston Elevated Railway Company.

A 7. Letter of H. A. Pasho, superintendent of elevated division, dated April 29, 1911.

A 8. Letter of Frederic F. Low, architect, dated April 27, 1911,

showing approximate measurement of the area of the Washington street tunnel platforms.

A 9. Letter of A. L. Plimpton, chief engineer, dated April 29, 1911, with accompanying statement, showing area and dimensions of platforms available for passengers in the Tremont street subway and the East Boston tunnel.

A 10. Letter of George A. Kimball, chief engineer, dated May 1, 1911, with accompanying statement, showing approximate dimensions and areas of platforms of elevated stations, including lower levels of the Forest Hills, Dudley street and Sullivan square stations.

A 11. Letter of H. A. Pasho, superintendent of elevated division, dated May 8, 1911, with information as to the means employed in other cities for the protection of passengers at stations.

The foregoing information found in the exhibits may be supplemented by a short statement of conditions in New York City.

The elevated stations, both there and in Brooklyn, are generally unprovided with a railing or other form of protection to prevent passengers from falling into the pit, so called, at said stations. There is, however, railing protection at a very few stations, notably Fulton street, where by reason of a wide stairway the platform for a short distance is extremely narrow. The subway stations are unprovided with platform railings to protect passengers from falling into the pit except at a few stations. At South Ferry, by reason of a sharp curve, a railing is maintained for some distance. At 14th street and 42d street (Grand Central station) single railings are maintained on a portion only of the platforms. A double railing is maintained at the Park Row terminal at the New York end of the Brooklyn bridge. This station has separate loading and discharging platforms and is a terminal station. By means of a double railing with removable bars traffic is well controlled at this station. All subway, elevated and Park Row terminal traffic movements in New York above referred to are by trains.

The second section of the order requests the Board to investigate the means that should be employed to protect from injury passengers at the stations of the Boston Elevated Railway Company, and especially to consider whether railings or other form of protection are necessary to prevent passengers from falling into the pit of said stations, and the means otherwise available to protect passengers from such injury, together with any recommendations the Board may deem proper to make to the general court.

Investigations here and elsewhere and a careful study of traffic conditions upon the platforms of elevated, subway and tunnel stations tend to show that the likelihood of injury sustained by falling or being pushed off the platforms into the pit is very remote. Experience of other cities as well as Boston confirms this view. On the other hand, it is of course possible that extreme and unusual conditions, arising from panic among passengers upon crowded platforms, might result in accidents by falling into the pit. The practical question, therefore, is whether all platforms should be protected by guard rails solely as an element of safety. The installation of guard rails would in itself introduce to some degree an element of danger, by reason of their proximity to the cars, and also by tending to congest traffic in the spaces where the guard rail must of necessity be open to move traffic. This situation would be especially true with respect to open cars in the subway. Another consideration of great importance is the fact that in many stations in Boston where single surface cars are operated the installation of guard rails would materially tend to reduce the traffic movement on the platforms, and so congest the stations. This would be especially true of the Park street station in the Tremont street subway, where the berth or stall of an approaching car is only indicated by the car sign, and during rush hours by bulletin signs.

Treating the situation as a whole, the Board is of opinion that, in view of the experience here and elsewhere, conditions in Boston are not such as to lead it to the conclusion that guard rails should be installed, upon safety principles solely, on the platforms at the subway, elevated and tunnel stations. Indeed, the consensus of opinion points to the installation of guard rails as a traffic device more than as a safety device. Even at stations like 14th street and 42d street in the New York subway, the platforms of which are congested at rush hours to a far greater degree than anything found in Boston, guard rails are only maintained upon part of the platforms, and primarily to control traffic, with safety as an incidental and resulting element.

Of course it is obvious that platform railings would in no degree control deaths by suicide. The safety of passengers would appear to be best secured by ample platform accommodations and a sufficient number of employees to direct traffic. Among the most congested stations on the Boston Elevated railway are, first, Park street, and the terminals at Dudley street and Sullivan square. A suggestion has already been made to the general court by the Bos-

ton transit commission and the railroad commission, sitting jointly, that the platforms of the Park street station could be enlarged if necessary legislation were enacted, and improvements have been made at Dudley street and are in process at Sullivan square. The elevated platforms must of necessity be limited to some degree in area by reason of highway conditions.

The Board understands that the general court has before it certain proposed legislation with respect to a study of transit and traffic conditions in and about Boston, and by the proposed act of the Board is authorized to investigate the same. This investigation, if authorized, with the necessary appropriation in money, will afford the Board an opportunity to further and completely study the regulating and moving of traffic, and to determine whether or not guard railings may be properly installed in certain stations as a means of regulating and moving traffic. Upon the sole question of safety, however, the Board is of opinion that the results of experience here and elsewhere, based upon its observation and study, taken in connection with local conditions, do not at this time indicate any sound ground for recommendations to the general court under the specific terms of the reference.

WALTER PERLEY HALL,  
GEORGE W. BISHOP,  
CLINTON WHITE,

MAY 31, 1911. [8242]

*Commissioners.*

## EXHIBIT A 1.

## INFORMATION REGARDING STATION PLATFORMS, ETC.

VICE-PRESIDENT'S OFFICE, 101 MILK STREET,  
BOSTON, MASS., May 2, 1911.

Hon. WALTER PERLEY HALL, *Chairman, Board of Railroad Commissioners, 20 Beacon Street, Boston, Mass.*

DEAR SIR:—I beg to submit herewith information available for use in connection with order passed by the legislature on April 12, 1911, relative to stations of the Boston Elevated Railway Company, as follows:—

The Tremont street subway was opened Sept. 1, 1897.

The elevated was opened June 10, 1901.

The East Boston tunnel was opened Dec. 30, 1904.

The Washington street tunnel was opened Nov. 30, 1908.

Memorandum of serious accidents to passengers in pits at stations: 15 in number,—of which 9 were fatal accidents, 5 of the 9 were plain cases of suicide. Of the 4 seriously injured, 2 were possible attempts at suicide. Three of the fatal cases occurred in the subway by surface cars. The other accidents scheduled were at elevated stations.

The earliest accident scheduled on the list is February, 1900, and the latest is February, 1911.

In addition to the serious accidents above scheduled there is a considerable list of accident reports of minor occurrences of the same character. With regard to these it is impossible to say what proportion represents injuries actually received.

I also submit statement from Chief Engineer Kimball, dated May 1, giving dimensions and areas of elevated station platforms; statement of Civil Engineer Plimpton, dated April 29, giving dimensions and areas of platforms in the Tremont street subway and East Boston tunnel; statement of Architect Low, of April 27, giving areas and widths of Washington street tunnel platforms.

I also submit statement of Superintendent Pasho of our elevated division, accompanied by his explanatory letter of April 29, giving the results of an accounting of passengers using the stations of the elevated lines during the rush hours of Thursday, April 27, 1911. In connection with this is submitted an account of passengers arriving and departing on elevated trains at Sullivan square and Dudley street stations.

I also add a statement covering the same hours on the same date of persons using subway and East Boston tunnel stations.

Superintendent Pasho's letter still further makes a statement of the means used to protect passengers from injury, and I am adding a statement from Mr. Tripp, superintendent of transportation, of the platform force employed at rush hours to safeguard passengers in the subway, tunnel and elevated terminal stations.



It is impossible to say how many persons have used the stations, but, based upon the cash receipts, there have been admitted:—

To subway stations, . . . . .	341,719,925
To elevated and Washington street tunnel stations, . . . . .	282,171,039

We estimate the number of persons admitted at subway stations where no prepayment fare is required to be 19,500,000.

These figures may be estimated to be doubled for persons arriving at the stations.

The number of persons transported in the East Boston tunnel, based upon the number of tolls, was 78,174,804.

Based on these estimates, therefore, the total number of persons using the stations was 1,364,956,732,—only 15 of whom have received serious injury in the pits or at the stations, a proportion of 1 to 97,496,909.

If further information than that herewith submitted is desired, and it is possible to furnish it, we shall be pleased to do so.

Very respectfully,

C. S. SERGEANT,  
*Vice-President.*

## EXHIBIT A 2.

## NUMBER OF PERSONS USING SUBWAY STATIONS FROM 6.30 TO 9.30 A.M. AND 3.30 TO 6.30 P.M., APRIL 27, 1911.

STATIONS.	A.M.						P.M.					
	6.30 to 7.	7 to 7.30.	7.30 to 8.	8 to 8.30.	8.30 to 9.	9 to 9.30.	3.30 to 4.	4 to 4.30.	4.30 to 5.	5 to 5.30.	5.30 to 6.	6 to 6.30.
Boylston Street, Northbound:—												
Entering southerly entrance,	12	18	16	12	20	30	68	84	95	193	260	114
Leaving southerly exit, . . .	135	215	417	475	359	280	244	237	244	302	329	334
Leaving northerly exit, . . .	29	51	179	475	263	234	210	217	245	170	181	327
From north to south platform, .	72	79	102	72	63	65	103	87	103	91	163	124
Boylston Street, Southbound:—												
Entering southerly entrance,	47	63	79	119	134	132	254	288	335	522	588	583
Leaving southerly exit, . . .	32	28	69	108	76	71	64	61	52	57	65	61
Entering northerly entrance,	2	2	6	7	13	15	69	97	110	82	162	64
Leaving northerly exit, . . .	1	1	2	11	6	6	4	6	5	3	6	11
Park Street, Northbound:—												
Entering southerly entrance,	6	10	3	12	19	27	172	101	160	268	261	131
Leaving southerly exit, . . .	12	40	120	557	273	179	241	310	161	146	96	98
Leaving northerly exit, . . .	142	253	711	1,099	1,370	1,070	936	830	574	330	378	400
From loop to through cars, . .	326	473	653	969	957	793	733	820	973	1,529	2,092	1,764
Park Street, Southbound:—												
Entering northerly or main entrance, .	30	100	130	100	170	270	1,027	1,313	1,586	2,154	2,432	1,491
Leaving northerly entrance, . .	1	8	12	17	15	14	3	9	5	2	3	1
Entering southerly entrance, . .	6	6	4	17	38	65	411	401	358	789	916	382
Leaving southerly exit, . . .	20	41	86	220	123	126	127	99	81	93	42	21
From through to loop cars, . .	585	890	1,049	1,120	1,045	600	639	673	673	778	829	711
Scollay Square, Northbound:—												
Entering northerly entrance,	80	96	65	68	59	57	121	160	206	276	448	316
Leaving northerly (main) exit, .	147	163	241	385	475	542	256	218	185	228	329	520
From Cornhill to Beattle Street, .	33	19	17	8	18	16	28	44	64	100	79	109
Entering from East Boston tunnel, .	111	95	101	131	114	97	124	111	162	356	561	407





## EXHIBIT A 3.

## PASSENGERS ON TRAINS LEAVING DUDLEY STREET, NORTHBOUND, THURSDAY, APRIL 27, 1911.

	ROUTE 02.			ROUTE 04.			ROUTE 012.			TOTALS.		
	Passen- gers.	Cars.	Average per Car.	Passen- gers.	Cars.	Average per Car.	Passen- gers.	Cars.	Average per Car.	Passen- gers.	Cars.	Average per Car.
6.30 to 7.00 A.M., .	1,016	20	51	913	15	60	888	20	44	2,817	55	51
7.00 to 7.30 A.M., .	731	15	49	470	10	47	822	10	82	2,023	35	58
7.30 to 8.00 A.M., .	2,177	25	87	1,338	20	66	3,781	40	95	7,296	85	86
8.00 to 8.30 A.M., .	2,057	30	68	954	20	48	2,864	30	95	5,875	80	73
8.30 to 9.00 A.M., .	2,073	35	59	564	20	28	1,998	30	67	4,635	85	54
9.00 to 9.30 A.M., .	852	25	34	260	15	17	932	20	47	2,044	60	34
Totals, . . . . .	8,906	150	59	4,479	100	45	11,285	150	75	24,690	400	62
3.30 to 4.00 P.M., .	497	22	22	143	14	10	400	12	33	1,040	48	21
4.00 to 4.30 P.M., .	506	20	25	209	15	14	466	14	33	1,181	49	24
4.30 to 5.00 P.M., .	504	30	17	295	18	16	593	30	20	1,392	78	17
5.00 to 5.30 P.M., .	537	30	18	500	24	20	1,141	36	31	2,178	90	24
5.30 to 6.00 P.M., .	856	36	23	521	24	21	1,070	30	36	2,447	90	27
6.00 to 6.30 P.M., .	514	34	15	277	16	17	768	24	32	1,559	74	21
Totals, . . . . .	3,414	172	20	1,945	111	18	4,438	146	30	9,797	429	23

Maximum car load, 145, 7.35 A.M.

Maximum train load (5 cars), 645, 7.35 A.M.

Weather, warm and clear.

## PASSENGERS ON TRAINS ARRIVING AT DUDLEY STREET, SOUTHBOUND, THURSDAY, APRIL 27, 1911.

	Route 01.			Route 03.			Route 011.			Totals.		
	Passen- gers.	Cars.	Average per Car.	Passen- gers.	Cars.	Average per Car.	Passen- gers.	Cars.	Average per Car.	Passen- gers.	Cars.	Average per Car.
6.30 to 7.00 A.M., .	433	15	29	419	15	28	1,002	25	40	1,854	55	33
7.00 to 7.30 A.M., .	514	20	26	508	15	33	622	20	31	1,644	55	30
7.30 to 8.00 A.M., .	276	20	14	281	20	14	732	30	24	1,289	70	18
8.00 to 8.30 A.M., .	84	10	8	303	20	15	405	25	16	792	55	14
8.30 to 9.00 A.M., .	234	35	7	176	30	6	263	30	9	673	95	7
9.00 to 9.30 A.M., .	190	30	6	130	15	9	280	25	11	600	70	8
Totals,	1,731	130	13	1,817	115	16	3,304	155	21	6,852	400	17
3.30 to 4.00 P.M., .	560	18	31	201	8	25	863	21	41	1,624	47	34
4.00 to 4.30 P.M., .	493	16	30	249	12	21	900	24	37	1,642	52	31
4.30 to 5.00 P.M., .	978	30	33	463	18	26	1,091	24	45	2,532	72	35
5.00 to 5.30 P.M., .	1,385	30	46	888	24	37	2,452	30	82	4,725	84	56
5.30 to 6.00 P.M., .	2,640	36	73	1,388	18	76	3,563	36	99	7,591	90	84
6.00 to 6.30 P.M., .	2,339	30	79	1,241	24	51	2,291	30	76	5,871	84	70
Totals,	8,395	160	52	4,430	104	42	11,160	165	69	23,985	429	56

Maximum car load, 125, 5.42 P.M.  
Maximum train load (6 cars), 688, 5.42 P.M.  
Weather, warm and clear.

## PASSENGERS ON TRAINS LEAVING SULLIVAN SQUARE, THURSDAY, APRIL 27, 1911.

	ROUTE 01.			ROUTE 03.			ROUTE 011.			TOTALS.		
	Passen- gers.	Cars.	Average per Car.	Passen- gers.	Cars.	Average per Car.	Passen- gers.	Cars.	Average per Car.	Passen- gers.	Cars.	Average per Car.
6.30 to 7.00 A.M., .	.	.	.	.	.	.	1,123	25	45	3,200	60	54
7.00 to 7.30 A.M., .	.	.	.	.	.	.	980	15	65	3,614	60	60
7.30 to 8.00 A.M., .	.	.	.	.	.	.	2,438	25	98	4,728	55	85
8.00 to 8.30 A.M., .	.	.	.	.	.	.	1,937	30	64	5,183	85	60
8.30 to 9.00 A.M., .	.	.	.	.	.	.	1,363	30	45	3,322	85	39
9.00 to 9.30 A.M., .	.	.	.	.	.	.	1,199	30	40	2,041	60	34
Totals, .	.	.	.	.	.	.	9,040	145	62	22,148	405	54
3.30 to 4.00 P.M., .	.	.	.	.	.	.	679	30	23	1,159	58	20
4.00 to 4.30 P.M., .	.	.	.	.	.	.	356	18	19	1,221	50	24
4.30 to 5.00 P.M., .	.	.	.	.	.	.	533	30	18	1,233	78	16
5.00 to 5.30 P.M., .	.	.	.	.	.	.	730	30	24	1,556	84	18
5.30 to 6.00 P.M., .	.	.	.	.	.	.	741	36	21	1,738	96	18
6.00 to 6.30 P.M., .	.	.	.	.	.	.	523	22	24	1,296	58	22
Totals, .	.	.	.	.	.	.	3,562	166	21	8,203	424	19

Maximum car load, 135, 8.01 A.M.

Maximum train load (5 cars), 609, 8.01 A.M.

Weather, warm and clear.

## PASSENGERS ON TRAINS ARRIVING AT SULLIVAN SQUARE, THURSDAY, APRIL 27, 1911.

	Route 01.			Route 04.			Route 012.			Totals.		
	Passen- gers.	Cars.	Average per Car.	Passen- gers.	Cars.	Average per Car.	Passen- gers.	Cars.	Average per Car.	Passen- gers.	Cars.	Average per Car.
6.30 to 7.00 A.M., .	516	20	26	261	15	17	491	20	24	1,268	55	23
7.00 to 7.30 A.M., .	330	20	16	229	15	15	366	20	18	925	55	17
7.30 to 8.00 A.M., .	136	10	14	55	5	11	270	10	27	461	25	18
8.00 to 8.30 A.M., .	217	35	6	271	25	11	260	35	7	748	95	8
8.30 to 9.00 A.M., .	291	40	7	112	20	6	216	25	9	619	85	7
9.00 to 9.30 A.M., .	161	25	6	111	15	7	232	25	9	504	65	7
Totals, . . . . .	1,651	150	11	1,039	95	11	1,335	135	14	4,325	380	12
3.30 to 4.00 P.M., .	552	16	34	232	12	15	717	16	45	1,501	44	33
4.00 to 4.30 P.M., .	673	26	26	180	16	11	615	8	78	1,468	50	29
4.30 to 5.00 P.M., .	643	18	35	502	24	20	1,161	28	41	2,306	70	33
5.00 to 5.30 P.M., .	1,656	30	55	1,102	18	61	1,321	24	55	4,079	72	56
5.30 to 6.00 P.M., .	3,072	36	85	1,548	18	86	2,681	30	89	7,301	84	87
6.00 to 6.30 P.M., .	3,159	42	75	671	12	55	2,174	30	73	6,004	84	71
Totals, . . . . .	9,755	103	57	4,235	100	42	8,669	136	63	22,659	404	56

Maximum car load, 170, 5.56 P.M.

Maximum train load (6 cars), 720, 5.56 P.M.

Weather, warm and clear.



## EXHIBIT A 4.

## COUNT OF PASSENGERS USING ELEVATED DIVISION STATIONS DURING RUSH HOURS, THURSDAY, APRIL 27, 1911.

	A.M. — HALF HOUR ENDING —						Totals for Three Hours.	P.M. — HALF HOUR ENDING —						Totals for Three Hours.	
	7.00.	7.30.	8.00.	8.30.	9.00.			4.00.	4.30.	5.00.	5.30.	6.00.			6.30.
THOMPSON SQUARE.															
Admitted from street, southbound, . . . . .	178	128	311	244	147	51	1,059	52	59	78	94	78	97	458	
Admitted from street, northbound, . . . . .	17	11	14	6	9	5	62	13	15	58	41	30	45	202	
Leaving by exit, southbound, . . . . .	54	61	16	25	36	14	206	18	19	21	25	30	31	144	
Leaving by exit, northbound, . . . . .	85	68	28	50	70	31	332	84	72	95	143	220	270	884	
Total using station, . . . . .	334	268	369	325	262	101	1,659	167	165	252	303	358	443	1,688	
CITY SQUARE.															
Admitted from street, southbound, . . . . .	180	166	217	292	142	66	1,063	87	129	140	415	184	191	1,146	
Admitted from street, northbound, . . . . .	38	17	19	17	12	11	114	26	31	60	229	93	75	514	
Leaving by exit, southbound, . . . . .	76	107	104	44	40	22	393	18	14	20	30	58	36	176	
Leaving by exit, northbound, . . . . .	91	314	352	137	142	85	1,122	106	81	83	114	205	266	855	
Total using station, . . . . .	385	604	692	490	336	185	2,692	237	255	303	788	540	568	2,691	
NORTH STATION.															
Admitted from street to southbound platform, . . . . .	202	201	180	190	205	63	1,041	81	120	170	230	207	100	908	
Admitted from street to northbound platform, . . . . .	245	210	250	270	230	150	1,355	200	180	290	420	410	370	1,870	
Admitted from street to shuttle platform, . . . . .	150	225	180	200	230	150	1,135	91	68	88	114	87	58	506	
From northbound platform to shuttle platform, . . . . .	75	100	90	120	130	60	575	34	20	44	66	85	35	284	
Leaving by exit from northbound platform, . . . . .	347	459	433	377	350	191	2,157	173	183	355	430	725	390	2,256	
Leaving by exit from southbound platform, . . . . .	294	350	345	222	228	219	1,658	131	103	207	249	373	282	1,345	
Leaving by exit from shuttle platform, . . . . .	46	59	132	88	184	73	582	142	104	110	129	173	91	749	
From shuttle platform to southbound platform, . . . . .	37	20	27	30	84	24	160	65	63	52	60	80	61	381	
Total using station, . . . . .	1,396	1,624	1,637	1,497	1,579	930	8,663	917	841	1,316	1,698	2,140	1,387	8,299	

COUNT OF PASSENGERS USING ELEVATED DIVISION STATIONS DURING RUSH HOURS, THURSDAY, APRIL 27, 1911 — *Continued.*

	A.M. — HALF HOUR ENDING —						Totals for Three Hours.	P.M. — HALF HOUR ENDING —						Totals for Three Hours.
	7.00.	7.30.	8.00.	8.30.	9.00.	9.30.		4.00.	4.30.	5.00.	5.30.	6.00.	6.30.	
DOVER STREET.														
Admitted from street, northbound, . . . . .	440	410	365	205	185	102	1,707	125	145	214	648	475	285	1,892
Admitted from street, southbound, . . . . .	368	300	150	105	63	56	1,042	75	130	170	520	365	227	1,341
Leaving by exit, northbound, . . . . .	564	622	564	432	176	179	2,237	100	120	157	230	427	307	1,489
Leaving by exit, southbound, . . . . .	616	642	383	520	294	160	2,615	133	172	194	389	557	100	1,545
Total using station, . . . . .	1,988	1,674	1,462	1,262	718	497	7,601	433	567	735	1,787	1,824	919	6,265
NORTHAMPTON STREET.														
Admitted from street, northbound, . . . . .	525	609	818	823	385	217	3,377	129	204	172	532	346	292	1,675
Admitted from street, southbound, . . . . .	90	129	97	86	42	38	482	68	90	62	231	309	242	1,002
Leaving by exit, northbound, . . . . .	216	208	339	243	464	169	1,639	80	88	90	131	225	138	752
Leaving by exit, southbound, . . . . .	300	267	246	189	192	175	1,369	139	161	220	367	914	664	2,465
Total using station, . . . . .	1,131	1,213	1,500	1,341	1,083	599	6,867	416	543	544	1,261	1,794	1,336	5,894
EGLESTON SQUARE.														
Admitted from street, northbound, . . . . .	246	292	419	363	210	102	1,632	56	39	60	159	88	60	462
Admitted from street, southbound, . . . . .	7	18	16	10	7	6	64	1	5	4	17	15	23	65
Leaving by exit, northbound, . . . . .	23	17	20	6	6	16	88	6	2	8	20	28	10	74
Leaving by exit, southbound, . . . . .	107	105	82	29	33	25	381	89	61	149	198	415	491	1,403
Total using station, . . . . .	383	432	537	408	256	149	2,165	152	107	221	394	546	584	2,004
ATLANTIC AVENUE STATIONS NOT DIVIDED.														
Beach Street.														
Admitted by collectors, . . . . .	38	25	43	46	37	38	227	37	26	40	114	135	94	446
Leaving by exit, . . . . .	90	77	330	308	98	45	948	38	37	44	49	66	65	299
Total using station, . . . . .	128	102	373	354	135	83	1,175	75	63	84	163	201	159	745
South Station.														
Admitted by collectors, . . . . .	133	188	272	313	237	251	1,394	286	238	309	1,257	1,774	568	4,382
Leaving by exits, . . . . .	970	835	1,101	1,135	911	361	5,313	319	227	305	436	364	222	1,873
Total using station, . . . . .	1,103	1,023	1,373	1,448	1,148	612	6,707	555	465	614	1,693	2,148	790	6,255



COUNT OF PASSENGERS USING ELEVATED DIVISION STATIONS DURING RUSH HOURS, THURSDAY, APRIL 27, 1911 — *Continued.*

	A.M. — HALF HOUR ENDING —						Totals for Three Hours.	P.M. — HALF HOUR ENDING —						Totals for Three Hours.
	7.00.	7.30.	8.00.	8.30.	9.00.			4.00.	4.30.	5.00.	5.30.	6.00.		
					9.30.	6.30.								
STATE — <i>Concluded.</i>														
Leaving by passage to East Boston tunnel, . . . . .	179	114	121	126	107	70	717	89	86	158	293	656	485	1,767
Leaving by exit to street, State Street, . . . . .	252	335	451	922	1,033	949	3,942	105	131	102	130	130	115	713
Leaving by exit to street, Adams Square, . . . . .	121	89	204	193	53	61	721	20	15	14	53	29	32	163
Leaving by exit to street, Water Street, . . . . .	15	10	29	51	60	19	184	—	3	8	—	4	2	17
Leaving by exit from East Boston tunnel to street, . . . . .	110	107	183	394	200	138	1,132	45	38	47	34	35	25	224
Total using station, . . . . .	886	848	1,145	1,772	1,558	1,346	7,555	513	650	729	1,638	1,840	1,541	6,911
MILK.														
Admitted from street, Milk Street, . . . . .	24	20	29	27	48	52	200	186	227	292	561	735	550	2,551
Admitted from street, Water Street, . . . . .	7	16	17	15	28	50	133	125	135	214	600	627	303	2,004
Admitted from East Boston tunnel, . . . . .	316	392	345	489	192	49	1,763	60	97	79	135	114	153	638
Leaving by exit, Milk Street, . . . . .	152	236	526	765	637	309	2,625	122	113	90	85	105	39	554
Leaving by exit, Water Street, . . . . .	132	143	418	460	816	223	2,192	29	17	34	10	35	18	143
Total using station, . . . . .	631	807	1,335	1,736	1,721	683	6,913	522	589	709	1,391	1,616	1,063	5,890
SUMMER.														
Admitted from street, Summer Street, . . . . .	27	60	56	50	73	59	325	448	272	449	739	1,453	726	4,087
Admitted from street, Franklin Street, . . . . .	4	3	9	9	13	13	42	29	71	72	253	407	217	1,049
Leaving by exit, Summer Street, . . . . .	114	169	668	1,657	947	342	3,897	195	189	119	77	33	28	641
Leaving by exit, Franklin Street, . . . . .	104	134	592	604	714	321	2,469	57	52	55	40	46	30	280
Total using station, . . . . .	249	366	1,316	2,320	1,747	735	6,733	729	584	695	1,109	1,939	1,001	6,057
WINTER.														
Admitted from street, Winter Street, . . . . .	6	11	26	29	31	49	152	171	205	351	529	1,131	524	2,911
Admitted from street, Temple Place, . . . . .	—	4	5	10	10	14	43	94	93	113	255	430	206	1,191
Leaving by exit, Winter Street, . . . . .	107	152	347	1,080	415	259	2,360	215	227	117	79	42	22	702
Leaving by exit, Temple Place, . . . . .	30	71	344	977	368	99	1,889	88	86	48	36	27	11	296
Total using station, . . . . .	143	238	722	2,096	824	421	4,444	568	611	629	899	1,630	763	5,100

Boylston.	Admitted from street, Boylston Street,	50	9	25	8	20	40	152	211	415	708	503	490	234	2,561
	Admitted from street, Lagrange Street,	48	13	40	33	13	17	144	40	87	90	143	226	264	810
	Leaving by exit, Boylston Street,	93	132	432	625	360	128	1,773	97	83	70	167	66	38	421
	Leaving by exit, Lagrange Street,	71	75	236	143	71	71	677	20	29	29	54	56	32	220
	Total using station,	262	232	713	819	464	256	2,746	368	574	897	767	838	568	4,012
Essex.	Admitted from street, Essex Street,	26	44	48	71	59	66	314	108	130	177	475	905	233	2,028
	Admitted from street, Hayward Place,	15	10	15	17	25	11	93	91	118	199	232	364	334	1,338
	Leaving by exit, Essex Street,	196	176	676	1,074	642	240	3,004	120	130	89	85	106	63	593
	Leaving by exit, Hayward Place,	55	67	301	682	234	115	1,454	49	57	46	42	36	22	252
	Total using station,	292	297	1,040	1,844	960	432	4,865	368	435	511	834	1,411	652	4,211
SULLIVAN SQUARE.	Admitted on surface cars, east platform,	1,857	2,394	2,825	1,827	1,256	632	10,791	471	533	494	380	1,074	609	3,561
	Admitted on surface cars, west platform,	1,216	1,334	2,010	1,667	1,272	715	8,214	405	437	539	789	491	593	3,254
	Admitted on surface cars, lower level, inbound,	664	712	1,078	815	617	502	4,388	319	362	536	350	322	383	2,021
	Admitted on surface cars, lower level, outbound,	363	355	390	302	247	154	1,841	276	296	470	648	703	828	3,221
	Admitted by collectors,	136	156	157	105	90	75	1,719	96	74	151	341	308	207	1,177
	Leaving by surface cars, east platform,	285	307	178	268	243	203	1,484	476	846	854	1,378	2,192	2,310	8,056
	Leaving by surface cars, west platform,	648	497	396	390	289	217	2,437	444	726	977	1,614	3,331	2,906	9,998
	Leaving by surface cars, lower level, inbound,	293	299	242	230	143	164	1,371	183	255	252	401	482	528	2,101
	Leaving by surface cars, lower level, outbound,	174	115	108	114	153	109	1,773	331	399	483	497	819	700	3,220
	Leaving by exit, turnstile,	80	57	35	37	21	18	248	17	21	40	52	85	64	279
	Leaving by exit, Alford and Main streets,	75	75	52	34	30	18	284	23	16	25	34	43	17	158
	Leaving by exit, Alford and West streets,	5	7	6	7	30	18	73	11	10	9	7	21	23	81
	Leaving by exit, Main and Beacham streets,	60	60	39	20	10	9	198	21	25	13	30	48	51	188
	Approximate total using station,	5,856	6,368	7,486	5,876	4,401	2,834	32,821	3,073	4,000	4,593	6,521	9,919	9,218	37,324
	Arriving on elevated trains,	1,268	925	461	748	619	504	4,525	1,501	1,468	2,306	4,079	7,301	6,004	22,659
	Leaving by elevated trains,	3,260	3,614	4,728	5,183	3,322	2,041	22,148	1,159	1,221	1,233	1,556	1,738	1,296	8,293
DUDLEY STREET.	Admitted by collectors, Warren Street, inbound,	120	149	255	228	147	81	980	62	60	64	81	69	63	399
	Admitted by collectors, Warren Street, outbound,	11	43	15	16	10	11	106	19	17	34	27	55	45	197
	Admitted by collectors, Washington Street, inbound,	133	147	209	147	105	84	825	69	69	58	81	69	90	436
	Admitted by collectors, Washington Street, outbound,	32	37	45	37	25	34	210	71	103	123	104	157	202	760
	Admitted on surface cars, lower level, inbound,	704	1,203	1,186	1,339	837	655	5,924	461	574	505	709	409	954	3,412
	Admitted on surface cars, lower level, outbound,	375	229	413	325	238	241	1,871	496	690	705	943	1,341	849	5,024
	Admitted on surface cars, upper level, east side,	1,073	3,028	2,528	2,645	1,898	936	12,108	578	905	594	1,177	850	913	5,017
	Admitted on surface cars, upper level, west side,	1,219	1,166	1,416	1,306	776	540	6,423	444	562	649	859	1,231	696	4,501
	Approximate total using station,	5,856	6,368	7,486	5,876	4,401	2,834	32,821	3,073	4,000	4,593	6,521	9,919	9,218	37,324
	Arriving on elevated trains,	1,268	925	461	748	619	504	4,525	1,501	1,468	2,306	4,079	7,301	6,004	22,659
	Leaving by elevated trains,	3,260	3,614	4,728	5,183	3,322	2,041	22,148	1,159	1,221	1,233	1,556	1,738	1,296	8,293

COUNT OF PASSENGERS USING ELEVATED DIVISION STATIONS DURING RUSH HOURS, THURSDAY, APRIL 27, 1911 — *Concluded.*

	A.M. — HALF HOUR ENDING —					Totals for Three Hours.	P.M. — HALF HOUR ENDING —					Totals for Three Hours.	
	7.00.	7.30.	8.00.	8.30.	9.00.		9.30.	4.00.	4.30.	5.00.	5.30.		6.00.
DUDLEY STREET— <i>Concluded.</i>													
Leaving by surface cars, upper level, west side, . . . . .	871	1,127	705	607	611	256	433	565	787	1,335	1,798	1,418	6,326
Leaving by surface cars, upper level, east side, . . . . .	579	624	583	517	466	390	905	1,100	1,313	2,447	3,070	3,004	11,839
Leaving by surface cars, lower level, inbound, . . . . .	473	697	813	763	642	372	379	362	349	558	630	384	2,662
Leaving by surface cars, lower level, outbound, . . . . .	364	349	344	322	193	176	460	624	913	1,102	1,514	1,179	5,792
Leaving by exit to Washington Street, . . . . .	88	69	118	148	89	72	153	116	148	208	215	295	1,135
Leaving by exit to Warren Street, . . . . .	38	39	41	21	31	15	50	85	66	115	171	184	671
Leaving by incline exit from east platform, . . . . .	4	5	6	10	4	5	34	6	7	16	33	36	135
Leaving by incline exit from west platform, . . . . .	2	4	5	5	4	1	2	4	4	6	7	4	27
Approximate total using station, . . . . .	6,086	8,916	8,682	8,436	6,124	3,869	42,144	4,588	5,843	6,328	9,785	11,683	48,433
Arriving by trains on southbound platform, . . . . .	875	1,204	903	639	430	371	4,422	848	984	1,274	2,599	4,651	14,639
Admitted to southbound platform from other platforms, . . . . .	73	80	39	86	19	47	344	56	48	89	146	133	621
Alighting from trains from Forest Hills, . . . . .	111	85	233	168	109	48	754	43	41	62	68	96	374
Leaving by elevated trains, north bound, . . . . .	2,817	2,023	7,296	5,875	4,635	2,044	24,690	1,040	1,181	1,392	2,178	2,447	9,797
FOREST HILLS.													
Admitted by collectors to lower level, northbound, . . . . .	282	376	390	406	280	228	1,982	157	181	168	390	248	1,271
Admitted by collectors to lower level, southbound, . . . . .	13	12	7	7	10	4	53	19	22	25	42	39	180
Admitted by surface cars to lower level, northbound, . . . . .	563	639	607	656	205	178	2,938	142	92	204	257	220	1,101
Admitted by surface cars to lower level, southbound, . . . . .	49	53	64	50	53	23	292	35	82	67	100	95	116
Leaving by exits from northbound surface platform, . . . . .	11	20	22	14	12	10	89	12	27	34	30	33	186
Leaving by exits from southbound surface platform, . . . . .	34	56	58	52	52	34	286	79	89	102	226	240	814
Departing by surface cars, northbound, . . . . .	86	108	120	164	72	29	579	50	94	124	117	147	634
Departing by surface cars, southbound, . . . . .	252	303	314	207	195	182	1,453	386	385	654	892	1,040	4,562
Total using lower level, . . . . .	1,290	1,567	1,582	1,556	969	688	7,652	880	961	1,365	1,930	2,045	9,243
Admitted to upper level on escalator, . . . . .	527	725	842	837	552	340	3,823	190	218	243	400	360	1,621
Admitted to upper level by northerly stairway, . . . . .	—	—	1	1	2	2	4	—	—	3	—	1	4
Admitted to upper level by southerly stairway, . . . . .	147	233	257	292	146	73	1,148	59	53	80	150	125	570
Leaving by northbound trains, . . . . .	674	958	1,100	1,130	698	415	4,975	249	271	326	550	486	2,195
Arriving on elevated trains, southbound, . . . . .	306	334	273	202	167	176	1,458	326	382	460	757	1,181	4,623
Total using upper level, . . . . .	980	1,292	1,373	1,332	865	591	6,433	575	653	786	1,307	1,667	6,818

Weather, warm and clear.

## EXHIBIT A 5.

NUMBER OF MEN EMPLOYED IN THE OPERATION OF CARS AT SUBWAY AND EAST BOSTON TUNNEL STATIONS DURING RUSH HOURS WEEKDAYS.<sup>1</sup>

LOCATION (STATIONS).	NUMBER AND CLASSIFICATION.		
	A.M.	P.M.	
Pleasant Street entrance subway, . . .	1	1	Starter for shuttle line.
South section subway, . . . . .	2	2	Inspectors.
Boylston Street Station subway, . . .	1	1	Special officer.
Boylston Street Station subway, . . .	1	1	Platform guard.
Boylston Street Station subway, . . .	-	1	Indicating-sign man assigning cars to berths.
Park Street Station subway, . . . . .	1	6	Special officers.
Park Street Station subway, . . . . .	4	5	Platform guards.
Park Street Station subway, . . . . .	1	1	Electrician to take care of disabled cars.
Park Street Station subway, . . . . .	-	1	Indicating-sign man assigning cars to berths.
Scollay Square Station subway, . . . .	1	1	Special officer.
Scollay Square Station subway, . . . .	1	1	Platform guard.
Scollay Square Station subway, . . . .	1	1	Electrician to take care of disabled cars.
Adams Square Station subway, . . . . .	1	1	Platform guard.
Haymarket Square Station subway, . . .	1	1	Special officer.
Haymarket Square Station subway, . . .	-	1	Platform guard.
Causeway and Canal Street Stations subway,	1	1	Starter.
Causeway and Canal Street Stations subway,	2	3	Platform guards.
Causeway and Canal Street Stations subway,	1	1	Switchman.
Court Street Station, East Boston tunnel, .	1	1	Special officer.
Court Street Station, East Boston tunnel, .	1	1	Platform guard.
Devonshire Street Station tunnel, . . . .	2	2	Platform guards.
Devonshire Street Station tunnel, . . . .	1	1	Electrician.
Atlantic Avenue Station, tunnel, . . . .	1	1	Special officer.
Atlantic Avenue Station, tunnel, . . . .	2	2	Platform guards.
Atlantic Avenue Station, tunnel, . . . .	3	3	Elevator-men.
Atlantic Avenue Station, tunnel, . . . .	1	1	Electrician.
	32	42	

<sup>1</sup> Exclusive of entrance guards, and ticket collectors, April 27, 1911.

## ATTENDANTS AT STATIONS.

BOSTON ELEVATED RAILWAY COMPANY, SULLIVAN SQUARE TERMINAL,  
SUPERINTENDENT'S OFFICE, ELEVATED DIVISION,  
CHARLESTOWN, MASS., May 27, 1911.

Mr. C. S. SERGEANT, *Vice-President*.

DEAR SIR: — Replying to your letter of May 25, and supplementing mine of April 29, regarding information for the board of railroad commissioners, I beg to state that in addition to there being a trainman on every car, whose duties are to open and close doors and be generally watchful for the safety and comfort of passengers, platform attendants, whose duties are to look after the safety of passengers, are provided at our several stations as follows: —

STATIONS.	NUMBER AND CLASSIFICATION.		
	A.M.	P.M.	
Sullivan Square: —			
East elevated platform, . . . . .	1	1	Special officer.
East elevated platform, . . . . .	3	-	Platform men.
West elevated platform, . . . . .	2	1	Special officers.
West elevated platform, . . . . .	3	-	Platform men.
Surface platform, upper level, . . . . .	-	10	Platform men.
Surface platform, upper level, . . . . .	-	2	Inspectors.
Surface platform, lower level, . . . . .	-	1	Inspector.
Surface platform, lower level, . . . . .	-	1	Starter.
Thompson Square, . . . . .	1	1	Special officer.
City Square, . . . . .	1	1	Special officer.
North Station, . . . . .	1	1	Special officer.
North Station, . . . . .	1	4	Platform men.
Union Station, . . . . .	1	1	Special officer.
Friend Station, . . . . .	1	1	Special officer.
State Station (tunnel), . . . . .	1	1	Special officer.
State Station (tunnel), . . . . .	1	2	Platform men.
Milk Station, . . . . .	1	1	Special officer.
Milk Station, . . . . .	2	4	Platform men.
Summer Station, . . . . .	1	1	Special officer.
Summer Station, . . . . .	1	2	Platform men.
Winter Station, . . . . .	1	1	Special officer.
Winter Station, . . . . .	1	2	Platform men.
Boylston Station, . . . . .	1	1	Special officer.
Boylston Station, . . . . .	1	2	Platform men.



STATIONS.	NUMBER AND CLASSIFICATION.		
	A.M.	P.M.	
Essex Station, . . . . .	1	1	Special officer.
Essex Station, . . . . .	2	4	Platform men.
Dover Station, . . . . .	1	1	Special officer.
Dover Station, . . . . .	1	1	Platform man.
Northampton Station, . . . . .	1	1	Special officer.
Dudley Street:—			
Elevated northbound platform, . . . . .	1	1	Special officer.
Elevated northbound platform, . . . . .	6	1	Platform men.
Elevated southbound platform, . . . . .	1	1	Special officer.
Elevated southbound platform, . . . . .	2	3	Platform men.
Surface east elevated loop, . . . . .	1	2	Special officers.
Surface east elevated loop, . . . . .	1	5	Platform men.
Surface west elevated loop, . . . . .	1	2	Special officers.
Surface west elevated loop, . . . . .	1	1	Platform man.
Surface lower level, . . . . .	2	3	Special officers.
Surface lower level, . . . . .	1	2	Inspectors.
Egleston Square, . . . . .	1	1	Special officer.
Forest Hills:—			
Elevated level, . . . . .	1	1	Special officer.
Surface level, . . . . .	1	1	Starter.
Surface level, . . . . .	—	1	Inspector.
Surface level, . . . . .	—	1	Platform man.
Beach Street, . . . . .	1	1	Special officer.
South Station, . . . . .	1	1	Special officer.
South Station, . . . . .	1	1	Platform man.
Rowes' Wharf, . . . . .	1	1	Special officer.
State Street (Avenue), . . . . .	1	1	Special officer.
Battery Street, . . . . .	1	1	Special officer.
Battery Street, . . . . .	1	2	Platform men.

Yours truly,

H. H. PASHO,  
Superintendent.

BOSTON ELEVATED RAILWAY COMPANY, VICE-PRESIDENT'S OFFICE,  
101 MILK STREET, BOSTON, MASS., May 29, 1911.

HON. WALTER PERLEY HALL, *Chairman, Board of Railroad Commissioners, 20 Beacon Street, Boston, Mass.*

DEAR SIR:— In further response to inquiries as to the care which this company gives to safety of its passengers at stations, I beg to submit herewith a letter, dated May 27, from the superintendent of our elevated division, H. A. Pasho, which states specifically the forces employed to look after the safety of passengers at the several stations of the elevated lines in addition to the trainmen, whose special duty it is to care for the safety of passengers boarding and leaving the trains.

A similar statement has also been submitted of the extra attendants employed in the subway and East Boston tunnel, and I would state in addition that the motorman and conductor who are on every surface car are charged with the duty of attending to the safety of passengers who are boarding and leaving the cars.

Very respectfully,

C. S. SERGEANT,  
*Vice-President.*

#### EXHIBIT A 6.

#### SUMMARY OF SERIOUS ACCIDENTS TO PASSENGERS IN PITS AT STATIONS OF THE BOSTON ELEVATED RAILWAY COMPANY.

LOCALITY.	Number.	Character.	Remarks.
Boylston Station, .	1	Serious, . . .	Man jumped or fell into pit.
Dover Street, .	3	<div> <div>1 suicide, . . .</div> <div>2 serious, . . .</div> </div>	<div> <div>Woman, inmate of Austin Farm, jumped in front of train.</div> <div>Man, intoxicated, staggered off platform.</div> </div>
Winter Station, .	1	Suicide, . . .	Man jumped in front of train.
State Station, .	2	<div>1 suicide, . . .</div> <div>1 attempted suicide,</div>	<div>Man jumped in front of train.</div> <div>Man jumped in front of train.</div>
State Street, . .	1	Serious, . . .	Man fell or was pushed in front of train.
Union Station, .	2	<div>1 attempted suicide,</div> <div>1 suicide, . . .</div>	<div>Man climbed into pit.</div> <div>Man jumped in front of train.</div>
Dudley Street, .	2	<div>1 fatal, . . .</div> <div>1 suicide, . . .</div>	<div>Man collided with another and fell into pit.</div> <div>Man jumped in front of train.</div>
Haymarket Square,	2	Fatal, . . .	Man, intoxicated, staggered off platform.
Park Street, . .	1	Fatal, . . .	Man, alighting from front platform of surface car, caught by clothing and pulled under car.
	15		Woman pushed into pit.

## EXHIBIT A 7.

BOSTON ELEVATED RAILWAY COMPANY,  
SUPERINTENDENT'S OFFICE, ELEVATED DIVISION,  
SULLIVAN SQUARE TERMINAL, CHARLESTOWN, MASS., April 29, 1911.

Mr. C. S. SERGEANT, *Vice-President*.

DEAR SIR:—Pursuant to instructions contained in your letter of April 22, asking for certain information for the railroad commissioners, I beg to advise that in co-operation with Mr. Tripp and the superintendents of surface divisions we ascertained the number of persons using our several stations between 6.30 and 9.30 A.M. and 3.30 and 6.30 P.M., Thursday, April 27, and I enclose, in duplicate, tabulated statements of the same, showing in considerable detail the various classes of passengers, divided into half-hour periods.

At way stations it has been possible to accurately show the "totals using station," but such figures at Sullivan square and Dudley street will be more or less misleading until the items going to make up the "approximate totals" are analyzed. Terminal figures, however, can be considered as truly representing conditions on the various platforms and areas.

Counts of passengers on trains arriving at and leaving terminals may be considered as secondary counts, for all such passengers were also counted as entering or leaving the station in some other manner. The figures are included, however, as a matter of information.

In order to afford some form of comparison with the counts taken Nov. 2, 3 and 4, 1909, the passengers arriving at and leaving terminals have been averaged by cars, etc., and statements of same are enclosed in duplicate form.

We were unable to supply information as to area of platforms and waiting rooms, as stated in my letter to you April 25, but Mr. Low has furnished me with the information so far as Washington street tunnel stations are concerned, and I enclose his report herewith.

As to the number and character of accidents that have occurred at stations, we do not have a classified list of all such accidents, but I enclose statement, in duplicate, showing the more serious ones.

As to means used to protect passengers from injury:—

1. All cars are vestibuled, and when in motion all means by which passengers can board or leave are closed, thus preventing passengers from getting on and off at will.

2. There is a trainman on every car of all trains, whose duties are to open and close doors and be generally watchful for the safety and comfort of passengers.

3. Generally speaking, there is at least one attendant on every station platform, usually a special police officer, whose duties, among other things, are to be watchful for the safety of passengers. This would consist of protecting passengers against rushing, crowding, etc., giving

those on trains an opportunity to alight before others are allowed to board, restraining disorderly and intoxicated passengers, and, in a general way, assisting in the quick and safe despatch of passengers. At crowded points, especially the terminals during certain rush hours, a platform man is provided at each middle door for the particular purpose of allowing passengers to alight before any are allowed to board, and to prevent any crowding.

Yours truly,

H. A. PASHO,  
*Superintendent.*

#### EXHIBIT A 8.

#### WASHINGTON STREET TUNNEL STATIONS. — PLATFORM AREAS.

BOSTON ELEVATED RAILWAY COMPANY,  
BUREAU OF OPERATION, DEPARTMENT OF BUILDINGS, 2503 WASHINGTON STREET,  
ROXBURY DISTRICT, BOSTON, MASS., April 27, 1911.

Mr. H. A. PASHO, *Superintendent, Elevated Division.*

DEAR SIR: — As verbally requested by Mr. Hall, we have made an approximate measurement of the area of Washington street tunnel platforms, and make the measurements as follows: —

	Square Feet.	Average Width.
Boylston Station, . . . . .	4,800	15 feet, 6 inches.
Essex, . . . . .	5,055	18 feet, 0 inches.
Winter, . . . . .	5,354	17 feet, 0 inches.
Summer, . . . . .	5,336	16 feet, 0 inches.
Milk, . . . . .	6,348	15 feet, 0 inches.
State, . . . . .	5,460	12 feet, 0 inches.
Union, . . . . .	4,800	12 feet, 0 inches.
Friend, . . . . .	3,960	12 feet, 0 inches.

The above areas are the space available for the public, after passing the ticket choppers, and excludes areas occupied by news stands, boot-black stands, columns, etc.

We are not in a position to give you measurements of the elevated station platforms, and have already referred Mr. Hall to Mr. Kimball for this information.

Very truly yours,

FREDERIC F. LOW,  
*Architect.*

## EXHIBIT A 9.

## TREMONT STREET SUBWAY AND EAST BOSTON TUNNEL.—AREA AND DIMENSIONS, ETC.

CIVIL ENGINEER'S OFFICE, 101 MILK STREET,  
BOSTON, MASS., April 29, 1911.Mr. C. S. SERGEANT, *Vice-President*.

DEAR SIR:—As directed by you in your letter of April 22, I have had prepared and forward herewith a report giving the area and dimensions of the platforms available for passengers in the Tremont street subway and the East Boston tunnel.

Very respectfully,

A. L. PLIMPTON,  
*Civil Engineer.*

Location: Tremont street subway and East Boston tunnel.

Subject: Dimensions and area platforms available for passengers.

*Boylston Street Station.*

Southbound platform:—

Length, 230 feet; width, varies from 4 feet to 30 feet; area, 5,675 square feet.

Northbound platform:—

Length, 270 feet; width, varies from 3 feet to 30 feet; area, 5,890 square feet.

*Park Street Station.*

Northbound platform:—

Length, 210 feet; width, varies from 3 feet to 40 feet; area, 5,565 square feet.

Southbound platform:—

Length, 240 feet; width, varies from 3 feet to 45 feet; area, 6,935 square feet.

*Scollay Square Station.*

Northbound platform:—

Length, 160 feet; width, varies from 2 feet to 34 feet; area, 2,943 square feet.

Southbound platform:—

Length, 222 feet; width, varies from  $4\frac{1}{2}$  feet to 21 feet; area, 2,670 square feet.

East platform:—

Length, 184 feet; width, varies from 15 feet to 58 feet; area, 4,055 square feet.

*Adams Square Station.*

East platform:—

Length, 170 feet; width, varies from 4 feet to 18 feet; area, 1,630 square feet.

West platform: —

Length, 117 feet; width, varies from  $7\frac{1}{2}$  feet to 10 feet, available to cars; total length, 211 feet; area, 3,745 square feet.

*Haymarket Square Station.*

Northbound platform: —

Length, 326 feet; width, varies from 3 feet to 31 feet; area, 5,920 square feet.

Southbound platform: —

Length, 280 feet; width, varies from  $10\frac{1}{2}$  feet to 32 feet; area, 5,965 square feet.

*Court Street Station.*

Inbound platform: —

Length, 112 feet; width, varies from  $5\frac{1}{2}$  feet to 16 feet; area, 1,210 square feet.

Outbound platform: —

Length, 145 feet; width, varies from 18 feet to  $28\frac{1}{2}$  feet; area, 2,650 square feet.

*Devonshire Street Station.*

Inbound platform: —

Length, 175 feet; width, varies from 11 feet to 20 feet; area, 2,550 square feet.

Outbound platform: —

Length, 188 feet; width, varies from  $10\frac{1}{2}$  feet to 23 feet; area, 2,953 square feet.

*Atlantic Avenue Station.*

Inbound platform: —

Length, 144 feet; width, 10 feet; area, 1,440 square feet.

Outbound platform: —

Length, 144 feet; width, 10 feet; area, 1,440 square feet.

EXHIBIT A 10.

BUREAU OF ELEVATED AND SUBWAY CONSTRUCTION, OFFICE OF CHIEF ENGINEER,  
101 MILK STREET, BOSTON, MASS., May 1, 1911.

Mr. C. S. SERGEANT, *Vice-President, Boston Elevated Railway Company.*

DEAR SIR: — As requested by your letter of April 26, 1911, I send you herewith the approximate dimensions and areas of platforms of elevated stations, including the lower levels, at the Forest Hills, Dudley street and Sullivan square stations.

This information, I understand, is for the use of the board of railroad commissioners in their report to the general court upon the means employed, or that should be employed, to protect from injury passengers at the stations of the Boston Elevated Railway.

Very truly yours,

GEORGE A. KIMBALL,  
*Chief Engineer.*

## APPROXIMATE DIMENSIONS AND AREAS OF ELEVATED STATION PLATFORMS, APRIL, 1911.

NAME OF STATION.	PLATFORM DIMENSIONS IN FEET.			
	Maximum Length.	Maximum Width.	Minimum End Width.	Total Area.
<i>Forest Hills.</i>				
Upper level: —				
Northbound elevated platform, . . .	355.3	29.4	2.5	9,237
Southbound elevated platform, . . .	355.3	18.4	4.9	6,396
Lower level: —				
Inbound surface platform, . . .	360.0	18.0	10.0	6,277
Outbound surface platform, . . .	360.0	14.0	10.0	4,977
<i>Egleston Square.</i>				
Northbound elevated platform, . . .	288.9	12.4	7.4	3,109
Southbound elevated platform, . . .	288.9	12.4	7.4	3,202
<i>Dudley Street.</i>				
Upper level: —				
Southbound elevated platform, . . .	377.0	16.5	10.0	5,275
Northbound elevated platform, east, . . .	480.0	15.0	7.6	5,300
Northbound elevated platform, west, . . .	480.0	14.0	7.6	5,090
Unloading surface platform, west loop, . . .	300.0	19.0	6.0	4,835
Loading surface platform, west loop, . . .	305.0	21.0	4.0	7,530
Unloading surface platform, east loop, . . .	450.0	15.0	9.0	5,100
W. loading surface platform, east loop, . . .	280.0	19.0	5.0	4,462
E. loading surface platform, east loop, . . .	320.0	21.0	5.0	7,250
Lower level: —				
Inbound surface platform, . . .	230.0	68.0	18.0	16,375
Outbound surface platform, . . .	255.0	60.0	38.0	12,000
<i>Northampton Street.</i>				
Northbound elevated platform, . . .	361.0	11.1	7.4	3,339
Southbound elevated platform, . . .	361.0	11.1	7.4	3,339
<i>Dover Street.</i>				
Northbound elevated platform, . . .	249.9	9.0	5.2	2,137
Southbound elevated platform, . . .	249.9	9.0	5.2	2,137
<i>Beach Street.</i>				
Northbound elevated platform, . . .	351.0	8.1	5.3	2,487
Southbound elevated platform, . . .	351.0	8.1	5.3	2,487

## APPROXIMATE DIMENSIONS, ETC. — Concluded.

NAME OF STATION.	PLATFORM DIMENSIONS IN FEET.			
	Maximum Length.	Maximum Width.	Minimum End Width.	Total Area.
<i>South Station.</i>				
Northbound elevated platform, . . .	352.0	10.4	10.4	3,532
Southbound elevated platform, . . .	352.0	10.4	10.4	3,532
<i>Rowes Wharf.</i>				
Northbound elevated platform, . . .	349.4	10.4	7.8	3,180
Southbound elevated platform, . . .	349.4	10.3	7.8	3,180
<i>State Street.</i>				
Northbound elevated platform, . . .	363.2	7.7	7.7	2,797
Southbound elevated platform, . . .	363.2	7.7	7.7	2,797
<i>Battery Street.</i>				
Northbound elevated platform, . . .	353.4	9.2	7.7	2,986
Southbound elevated platform, . . .	353.4	9.2	7.7	2,986
<i>North Station.</i>				
Northbound elevated platform, . . .	353.2	11.5	4.1	2,755
Southbound elevated platform, . . .	353.2	11.5	4.1	2,755
Shuttle platform, . . . . .	143.1	10.5	3.5	1,614
<i>City Square.</i>				
Northbound elevated platform, . . .	349.7	12.2	8.2	3,606
Southbound elevated platform, . . .	349.7	12.2	8.2	3,580
<i>Thompson Square.</i>				
Northbound elevated platform, . . .	351.0	9.4	3.3	1,900
Southbound elevated platform, . . .	351.0	9.4	3.1	1,950
<i>Sullivan Square.</i>				
Platforms, east side, upper level, . . .	253.8	82.5	—	9,400
Platforms, west side, upper level, . . .	253.8	82.0	—	9,760
Platforms, lower level, . . . . .	240.0	200.0	—	33,046



## EXHIBIT A 11.

BOSTON ELEVATED RAILWAY COMPANY,  
SUPERINTENDENT'S OFFICE, ELEVATED DIVISION,  
SULLIVAN SQUARE TERMINAL, CHARLESTOWN, MASS., May 8, 1911.

Mr. C. S. SERGEANT, *Vice-President*.

DEAR SIR:—Replying to your letter of May 6 regarding request of the railroad commissioners for a report as to means used in other cities for the protection of passengers at stations, beg to report that in the fall of 1904 I accompanied General Bancroft on a visit to Liverpool, London, Paris and Berlin for the express purpose of studying transportation problems.

We made a particular study of the underground and overhead railroads which operate train service similar to ours. In every instance we found station platforms level with car platforms the same as in Boston, and in no instance did we see or learn of any railing, extended platform or other device for the protection of passengers. We also found that it is the general practice abroad to have high platforms at steam railroad stations, arranged similar to our platforms, and without any protection.

In many places we observed more or less crowding and pushing, but we saw no occasion for further protection along the lines referred to. On many of the steam railroads in these cities and in the Paris subway we noticed that doors were left open until after trains started, and closed as they passed an attendant on the platform. We also found them opened at will by passengers, who were allowed to step off before trains stopped.

In this connection I would say that Mr. Harold G. Brown, formerly inspector of signals for this company, but now chief electrical engineer for the McKenzie, Holland and Westinghouse Company of London, is now on a visit to this country. He called upon me on the morning of May 6 and I went over this matter with him.

He is located in London and makes frequent trips through the British Isles and France. He states that railings, sliding platforms, etc., are not provided by any of the overhead, underground or steam railways of those countries, and that station platforms are practically all on a level with car platforms, so that the trains run in so-called "pits," and also, that there are no safety devices beyond what we ourselves have, nor any agitation or need for the same. He furthermore states that within the London tubes he believes there is an average of one suicide a month by reason of people deliberately jumping in front of approaching trains.

I have also visited the large cities of this country which have elevated railroads and subways, and in all cases the station platforms are on a level with the car platforms. In no case are there railings, barriers

or other forms of protection on the platform, except at one or two of the heavier riding stations in the New York subway. At the 42d street station, for instance, there is a railing about three feet from the edge of the express train platform. This railing has openings in it at points where car doors stop, and during the heavy riding these openings are kept closed until trains have stopped, when they are opened and passengers allowed to rush through to the car door, where another congestion occurs.

I spent considerable time as recently as last February watching this particular device, and it is my opinion that it offers no real protection to passengers. In the first place, even on a crowded platform there is no crowding until a train arrives, and then a railing is no protection, for the train itself prevents any one falling onto the track. Secondly, the railing decreases the platform area, confining the passengers to a smaller space, and the crowding necessary to get first through the gate in the fence and then the car door tends to increase the inconvenience and prolong the station stop. I noticed at the 42d street station that the stops ranged from one to three and one-half minutes, and in my opinion considerable of this excessive time was due to the railing, for it certainly operated as a hindrance to passengers in boarding and leaving trains. During the rush hours the schedule calls for a train every minute and forty-eight seconds, but station stops at this point alone were so long that the schedule could not be maintained.

At stations on our system having curved platforms at the doorways, so that the opening between the platform and car amounts to six inches or more we provide sliding platforms, which are extended against the side of the car in such a manner as to close the gap between the car and station platform. This is more protection than is offered in any other city that I know of. In my opinion railings on our platforms would be a great hindrance to traffic and no real protection to passengers.

Yours truly,

H. A. PASHO,  
*Superintendent.*

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*Application of Boston Elevated Railway Company for revision of determination of Boston transit commission relative to stations in the Riverbank subway in the city of Boston.*

The Riverbank subway is authorized by chapter 573, Acts of 1907. Under the provisions of this act the Boston transit commission, on November 3, 1910, passed the following vote:

*Voted:* That the stations in the Riverbank subway be located on Massachusetts avenue, Dartmouth street and Charles street.

The Boston Elevated Railway Company, under the provisions of said act, has applied to the Board for a revision of such determination and "requests the Board to consider and finally determine the question as to whether or not there shall be any stations in said Riverbank subway, and if so the number and location thereof."

In making its determination the Board adopts as a controlling factor the principle laid down in its decision of March 29, 1905, upon a formal appeal of the same company from the determination of the Boston transit commission relative to the location of an entrance to the Washington street tunnel. The following language was then used:

The governing thought must, of course, be the largest convenience of the public consistent with a reasonable economy in construction.

Applying the foregoing rule to the application before us, we are of opinion that three stations, as located by the Boston transit commission, would afford the largest convenience to the public, and that their installation can be consistently secured with a reasonable economy in construction.

In arriving at the foregoing conclusion we must take the situation as we find it, and confine ourselves to the narrow issue presented by the application. The only legislative authority for the construction of a subway in this section of the city is for the proposed Riverbank subway, designed to contain two railway tracks and running, under the terms of the act, from a connection with the Park street station in and under the Charles river embankment, so called, to a point west of the Harvard bridge in the city of Boston. What our conclusions might be on the application before us if another subway in this section of the city were in progress of construction or had been authorized by the general court, it is not necessary to discuss.

The Board, therefore, has considered and now finally determines that there shall be three stations in the Riverbank subway, as located by the Boston transit commission on November 3, 1910.

WALTER PERLEY HALL,  
GEORGE W. BISHOP,  
CLINTON WHITE,

JANUARY 21, 1911. [8042]

*Commissioners.*

*Petition of the Boston Elevated Railway Company for approval of plan showing changes in elevated structure at its Dover street station in Boston.*

The annexed plan, numbered 28206, showing proposed changes in the elevated structure, platform and station and approaches thereto of the Boston Elevated railway at Washington and Dover streets in the city of Boston, in order to increase its capacity and to adapt the same for the running of eight-car trains, is hereby approved, consent being given to the changes shown, said plan being a modification or change of plan numbered 28205, approved by the Board September 14, 1909.

WALTER PERLEY HALL,  
GEORGE W. BISHOP,  
CLINTON WHITE,

JULY 6, 1911.

[8352]

Commissioners.

*Petition of the Boston Elevated Railway Company for approval of plan showing temporary elevated station near Dover street in Boston.*

The annexed plan, numbered 28207, showing proposed temporary elevated station of the Boston Elevated Railway Company to be used while making proposed modifications and changes in its Dover street station in the city of Boston, is hereby approved.

This approval is given upon the condition that the company will, in the event of the temporary structure continuing in use during the winter season, provide additional platform shelter satisfactory to the Board.

WALTER PERLEY HALL,  
GEORGE W. BISHOP,  
CLINTON WHITE,

JULY 6, 1911.

[8353]

Commissioners.

*Petition of the Boston Elevated Railway Company for approval of plan showing changes at its Dover street station in Boston.*

The annexed plan, numbered 28245, showing changes in the elevated station platform of the Boston Elevated Railway Company at Washington and Dover streets in the city of Boston, in order to increase its capacity and adapt the same to the running of six-car trains, said plan being a modification or change of plan

numbered 26659, approved by the Board July 27, 1904, is hereby approved, consent being given to the changes shown.

FREDERICK J. MACLEOD,  
GEORGE W. BISHOP,  
CLINTON WHITE,

NOVEMBER 3, 1911.

[8435]

*Commissioners.*

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*Petition of the Boston Elevated Railway Company for approval of plans showing changes in elevated structure at and near its Dudley street station in Boston.*

The annexed plans, numbered 27588 and 27589, showing proposed modifications and changes in the elevated structure of the Boston Elevated Railway Company in Washington street near Zeigler street and in the platforms of its Dudley street station and approaches thereto, in the city of Boston, in order to adapt the same to the running of eight-car trains, also showing changes, within the limits of the station, in tracks on surface level to increase their capacity, said plans being a modification or change of plan numbered 27584, approved by the Board April 22, 1910, are hereby approved, consent being given to the changes shown.

FREDERICK J. MACLEOD,  
GEORGE W. BISHOP,  
CLINTON WHITE,

NOVEMBER 3, 1911.

[8436]

*Commissioners.*

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*Petition of the Boston Elevated Railway Company for approval of plans showing changes in its Forest Hills station in Boston.*

The annexed plans, numbered 28688 and 28689, showing changes and additions, for the convenience of the travelling public, at the Forest Hills elevated station of the Boston Elevated Railway Company in Boston, said plans being a modification or change of plans numbered 26882 and 26883, approved by the Board March 24, 1909, are hereby approved, consent being given to the changes shown.

FREDERICK J. MACLEOD,  
GEORGE W. BISHOP,  
CLINTON WHITE,

OCTOBER 26, 1911.

[8489]

*Commissioners.*

*Petition of the Boston Elevated Railway Company for approval of plan showing additional details in connection with the construction of the Main street subway in Cambridge.*

The annexed plan, filed by the Boston Elevated Railway Company and numbered C-33003, showing additional details in connection with the construction of the Main street subway in Cambridge, consisting of ventilating chambers, emergency exits, pump rooms, motormen's room, and covered entrances to and exits from stations, is hereby approved.

WALTER PERLEY HALL,  
GEORGE W. BISHOP,  
CLINTON WHITE,

APRIL 25, 1911.

[8181]

Commissioners.

*Petition of residents of Winchester relative to establishment of a waiting-room at the junction of the Boston Elevated and the Boston and Northern railways at Winthrop square in the city of Medford.*

On February 4, 1910, the Board issued a report upon the petition of Whitfield L. Tuck and others as follows:

The petition, briefly stated, requests the Board to recommend the construction of a waiting-room at Winthrop square in the city of Medford. While it is true that the cars of both companies pass this point, there appears no sufficient demand for a waiting-room, as through cars are provided between Boston and Winchester. The petition is therefore dismissed.

The Board finds no reason to change the opinion expressed in the above report, and therefore dismisses the petition.

For the Board,

CHARLES E. MANN,

JANUARY 21, 1911.

[8127]

Clerk.

## SUNDAY TRAINS AND BOATS.

*Petition of the Eastern Steamship Company for authority to run steamboats on the Lord's day.*

It appearing to the Board, after consideration, that the public necessity, convenience, health and welfare may reasonably require, within the meaning and intent of the statute, the running of steamboats within the waters of the Commonwealth on the Lord's day, — it is

*Ordered*, That authority be hereby given to the Eastern Steamship Company to run its steamboats within the waters of the Commonwealth on the Lord's day during the year 1911; subject, however, to the following conditions:

1. Within the jurisdiction covered by this order, no intoxicating liquors shall be sold or furnished and no disorderly conduct, gaming or other sport be permitted either upon said steamboats or upon any premises owned or controlled by the company.

2. The authority hereby given may be revoked at any time in the discretion of the Board without previous notice to said company.

Attest: CHARLES E. MANN,  
[1910] Clerk.

JANUARY 10, 1911.

*Petition of the Merchants and Miners Transportation Company for authority to run its steamships on the Lord's day.*

It appearing to the Board, after consideration, that the public necessity, convenience, health and welfare may reasonably require, within the meaning and intent of the statute, the running of steamships within the waters of the Commonwealth on the Lord's day, — it is

*Ordered*, That authority be hereby given to the Merchants and Miners Transportation Company to run its steamships within the waters of the Commonwealth on the Lord's day during the year ending June 30, 1912; subject, however, to the following conditions:

1. Within the jurisdiction covered by this order, no intoxicating liquors shall be sold or furnished and no disorderly conduct, gam-

ing or other sport be permitted either upon said steamships or upon any premises owned or controlled by the company.

2. The authority hereby given may be revoked at any time in the discretion of the Board without previous notice to said company.

Attest: CHARLES E. MANN,  
JUNE 20, 1911. [8351] \_\_\_\_\_ Clerk.

*Petition of the Boston, Revere Beach and Lynn Railroad Company  
for authority to operate Sunday trains.*

After consideration, — it is

*Ordered,* That the Boston, Revere Beach and Lynn Railroad Company be hereby authorized to run on the Lord's day during the period ending May 15, 1912, the trains specified in the schedules on file with the petition, dated May 4, 1911, subject to the following conditions:

1. No train shall be run as an excursion train.
2. The rates of fare on said trains shall in no case be less than those charged on regular week-day trains between the same stations, including connecting steamboat lines.

All previous orders authorizing the running of trains on the Lord's day on the Boston, Revere Beach and Lynn railroad are hereby revoked, such revocation to take effect when the above named schedules are put in force.

Attest: CHARLES E. MANN,  
MAY 8, 1911. [8259] \_\_\_\_\_ Clerk.

By similar orders, schedules of regular Sunday trains, deemed to be necessary for the public accommodation, have been authorized by the Board on the Boston and Albany, the Boston and Maine, the Hoosac Tunnel and Wilmington, the New York, New Haven and Hartford and the Nantucket railroads.

*Petition of Lodge No. 2 of the Portuguese Fraternity of Taunton,  
for permission for a Sunday train from Boston to Peabody,  
and return.*

After consideration, — it is

*Ordered,* That the Boston and Maine Railroad be hereby authorized to run a special train from Boston to Peabody, and return,



on Sunday, September 3, 1911, for the exclusive use of Lodge No. 2 of the Portuguese Fraternity, for the purpose stated in the petition; provided that said train shall not be run as a public excursion train, and that the rates of fare shall not be less than those charged on regular week-day trains.

Attest: CHARLES E. MANN,  
AUGUST 17, 1911. [8130] *Clerk.*

*Petition of Rev. John L. Davis for permission for a Sunday train from Boston to Providence and return.*

After consideration, — it is

*Ordered,* That the New York, New Haven and Hartford Railroad Company be hereby authorized to run a special train over its lines in Massachusetts from Boston to Providence, Rhode Island, and return on Sunday, June 11, 1911, for the purpose of providing transportation for those desiring to attend the annual session of the New England Baptist Missionary Convention; provided that said train shall not be run as a public excursion train, and that the rates of fare shall not be less than those charged on regular week-day trains.

Attest: ALLAN BROOKS,  
MARCH 28, 1911. [8131] *Assistant Clerk.*

A number of other special Sunday trains have been authorized by the Board in the course of the year, for reasons which were deemed to be good and exceptional.

## MISCELLANEOUS.

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*Petition of the Boston Elevated Railway Company for approval of change in the boot-blackening stand at the Milk station of the Washington street tunnel in the city of Boston.*

After consideration, — it is

*Ordered*, That the approval of the Board be hereby given to the change in the boot-blackening stand at the Milk station of the Washington street tunnel in the city of Boston, leased to the Boston Elevated Railway Company, as shown on revised plan numbered 2037, and on file in this office.

Attest: CHARLES E. MANN,  
MAY 27, 1911. [8293] Clerk.

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## GATES AT DRAWBRIDGE.

*Petition of the Boston and Albany Railroad (New York Central and Hudson River Railroad Company, lessee), for approval of protecting-gates at drawbridge over Chelsea creek in Chelsea and Boston.*

After consideration, — it is

*Ordered*, That the approval of the Board be hereby given to the installation of protecting-gates at the drawbridge carrying the tracks of the Grand Junction branch of the Boston and Albany railroad over Chelsea creek, in the cities of Chelsea and Boston, as shown on blue prints on file with the petition.

Attest: CHARLES E. MANN,  
FEBRUARY 16, 1911. [8174] Clerk.

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## LIFTING JACKS.

*Order and recommendations of the Board in relation to the use of lifting jacks and other emergency tools upon street railways in this commonwealth.*

From information received from the officials of the street railway companies the Board finds that lifting jacks and other emer-

gency tools have been installed at 391 points upon the street railway lines in this commonwealth. Of this number 199 points have been established since January 1, 1911, by the recommendation of the Board.

After consideration, — it is

*Ordered*, That at least fifty per cent of all box cars and fifty per cent of all open cars operated by each street railway company for the transportation of passengers in Massachusetts shall be equipped with a lifting jack of at least fifteen tons capacity, and the assignment of such cars shall be so made that each line shall have as nearly as practicable a proper distribution thereof.

The Board recommends that the trucks of all double truck street railway cars operated in this state be so attached that both car body and truck may be raised at the same time without necessitating the use of chains, ropes or a large quantity of blocking. This may be successfully accomplished on cars having a king bolt (or centre pin) by inserting in the king bolt a key (or cotter pin) of sufficient strength to raise the trucks.

The Board further recommends that all conductors and motormen receive instructions with reference to the proper and safe use of lifting jacks.

July 1, 1912, is hereby fixed as the time when the foregoing order and recommendations shall become effective.

By the Board,

CHARLES E. MANN,

DECEMBER 27, 1911. [8599]

*Clerk.*

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#### FOOT-GUARD BLOCKING.

*Petition of the New York, New Haven and Hartford Railroad Company for approval of foot-guard blocking.*

After consideration, — it is

*Ordered*, That the approval of the Board be hereby given to the "Hart" system of standard foot-guards for frogs and switches for use in the tracks of the New York, New Haven and Hartford Railroad Company in Massachusetts, as shown on blue prints submitted by the petitioner, and on file in this office.

Attest:

CHARLES E. MANN,

MAY 24, 1911. [8292]

*Clerk.*

## CHANGE OF NAME OF A STREET RAILWAY COMPANY.

*Petition of the Boston and Northern Street Railway Company for authority to change its name to Bay State Street Railway Company.*

After notice and hearing and full consideration, it appearing that the proposed change of name was authorized by a vote of two-thirds of the stockholders of the Boston and Northern Street Railway Company, at a meeting duly called and held on July 21, 1911, — it is

*Ordered,* That authority be hereby given to the Boston and Northern Street Railway Company to change its name to Bay State Street Railway Company, and that said company be required to give public notice of the change so authorized by publication once in the Brockton Enterprise, the Fall River News, the Lowell Courier-Citizen, the Lynn Evening Item, the Boston Evening Transcript and the Boston Globe, newspapers printed in Brockton, Fall River, Lowell, Lynn and Boston, respectively.

Attest:                    CHARLES E. MANN,  
AUGUST 2, 1911.      [8413]                    Clerk.

## EXTENSION OF CORPORATE POWERS.

*Petition of the Worcester and Northern Street Railway Company for extension of time in which to construct and operate its railway.*

This petition is brought under the provisions of Acts of 1906, chapter 463, part III, section 30, which provides, among other things, that the Board, after public notice and a hearing, shall extend the time in which to construct and operate a street railway if in its judgment due diligence has been exercised by the company and the public necessity and convenience require such extension.

Upon the application before us it now appears that due diligence has not been exercised by the company, and in conformity with the Board's memorandum of May 3, 1911,<sup>1</sup> the petition is denied.

By the Board,

                                         CHARLES E. MANN,  
JULY 1, 1911.      [8124]                    Clerk.

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<sup>1</sup> This memorandum was as follows: The Board will, on July 1, 1911, unless good cause is shown to the contrary prior to that date, refuse to further extend the time for building and putting in operation the Worcester and Northern street railway. This memorandum is made as a result of the hearing on April 22, 1911.

*Petition of the Worcester and Providence Street Railway Company  
for extension of its corporate powers.*

After notice and hearing and further consideration, — it is

*Ordered*, That the Board hereby extend to July 1, 1912, the time within which the Worcester and Providence Street Railway Company is authorized to construct and operate its railway, said company, in the judgment of the Board, having exercised due diligence in the premises, and public necessity and convenience requiring such extension.

Attest: CHARLES E. MANN,  
MAY 22, 1911. [8264] Clerk.

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FIRE EXTINGUISHERS.

*Petition of the New York, New Haven and Hartford Railroad  
Company as to use of fire extinguishers.*

After consideration, — it is

*Ordered*, That the New York, New Haven and Hartford Railroad Company be hereby permitted to operate cars received by it from other railroads which are equipped with fire extinguishers either of the liquid type or of such other type as has been or may be approved by the Board for use on any other railroad operating within this state.

Attest: CHARLES E. MANN,  
OCTOBER 7, 1911. [8498] Clerk.

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RAILROAD RELIEF ASSOCIATION.

*Petition of the Boston, Revere Beach and Lynn Railroad Relief  
Association for approval of amendments to by-laws.*

After consideration, — it is

*Ordered*, That the approval of the Board be hereby given to the amendments to the by-laws of the Boston, Revere Beach and Lynn Railroad Relief Association, made at the annual meeting on January 9, 1911, and the adjourned annual meeting on March 30, 1911, a copy of which amendments is on file in this office.

Attest: CHARLES E. MANN,  
APRIL 7, 1911. [8223] Clerk.

## CAR SPRINKLING.

*Petition of the Boston and Northern Street Railway Company for approval of operation of sprinkler cars in Lawrence.*

After consideration, it appearing that a contract has been executed by the American Car Sprinkler Company and the Boston and Northern Street Railway Company, providing for the operation of sprinkler cars in the city of Lawrence, — it is

*Ordered*, That the approval of the Board, under section 37 of part III of chapter 463 of the Acts of 1906, be hereby given to said contract, upon the understanding that the manner in which the said sprinkler cars are operated shall be subject to supervision and further regulation by the Board from time to time as the public interests may require.

Attest: CHARLES E. MANN,  
MAY 1, 1911. [8241] *Clerk.*

Additional car sprinkler orders issued during 1911 are as follows:

*Old Colony Street Railway Company.*

Brockton, Taunton, May 2, 1911 — American Car Sprinkler Company. [8252]

*Taunton and Pawtucket Street Railway Company.*

Taunton, July 10, 1911 — American Car Sprinkler Company. [8389]

## SPEED OF TRAINS.

*Complaint of the selectmen of the town of Leominster relative to speed of trains on the New York, New Haven and Hartford railroad in that town.*

After consideration, the Board recommends to the New York, New Haven and Hartford Railroad Company that the speed of all trains while passing over the highway crossings of Main street and Water street in the town of Leominster shall not exceed fifteen miles per hour.

For the Board,

ALLAN BROOKS,  
NOVEMBER 6, 1911. [C 1710] *Assistant Clerk.*

## RAILROAD INSPECTOR.

It is

*Ordered*, That John W. Ogden, of Malden, be hereby appointed a railroad inspector under the provisions of section 1, part I, chapter 463, Acts of 1906, and chapter 681 of the Acts of 1911, for the term of three years, beginning with the first day of December, 1911.

Attest:

CHARLES E. MANN,

NOVEMBER 28, 1911.

[8580]

*Clerk.*

## EXPENSES OF OFFICE.

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Advertising, . . . . .	\$111 93
Furniture and furnishings, carpenter work, . . . . .	199 96
Electric lighting, etc., . . . . .	119 05
Expert services, . . . . .	7,670 62
Expressage and teaming, . . . . .	157 12
Janitor and care of office, . . . . .	1,300 00
Newspapers, publications, etc., . . . . .	331 59
Postage, . . . . .	1,158 50
Printing annual report, . . . . .	7,805 70
Printing and binding, . . . . .	391 43
Railroad inspectors' expenses, . . . . .	1,635 63
Rent of office, . . . . .	4,700 00
Stationery and office supplies, . . . . .	750 16
Stenographers and extra clerical services, . . . . .	3,700 20
Sundries, . . . . .	252 34
Telephone and telegrams, . . . . .	410 68
Travelling expenses, . . . . .	476 65
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Total office expenses, <sup>1</sup> . . . . .	\$31,171 56

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<sup>1</sup> Exclusive of salaries fixed by statute.



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TABULATED STATEMENTS

COMPILED FROM THE

# Returns of Railroad Corporations

FOR THE

YEAR ENDING JUNE 30, 1911.

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# DESCRIPTION OF RAILROADS OWNED AND OPERATED.

RAILROADS AND BRANCHES. (LEASED ROADS IN ROMAN.) * (BRANCHES IN ITALICS.)	1. — TERMINI.		2. — LENGTH OF LINE.		3. — SECOND TRACK.		4. — SIDE TRACK.		5. — Total Length computed as Single Track.
	From	To	Total.	In Massachusetts.	Total.	In Massachusetts.	Total.	In Massachusetts.	
ATTLEBOROUGH BRANCH, <sup>1</sup> BOSTON & ALBANY (operated by the New York Central & Hudson River, Lessee),	Attleborough,	No. Attleborough,	3.72	3.72	—	—	1.42	1.42	5.14
Athol,	Boston,	Rensselaer, N. Y.,	199.23	161.35	300.74 <sup>2</sup>	237.14 <sup>3</sup>	276.12	246.32	776.09
Grand Junction,	Athol Jct.,	Athol,	45.26	45.26	—	—	10.90	10.90	56.16
Hudson & Chatham,	Cottage Farm,	East Boston,	9.51	9.51	5.24	5.24	36.82	36.82	51.57
Milford,	Chatham, N. Y.,	Hudson, N. Y.,	17.33	—	1.06	—	8.96	—	27.35
Millbury,	So. Framingham,	Milford,	11.98	11.98	—	—	7.56	7.56	19.54
Newton Highlands,	Millbury Jct.,	Millbury Village,	3.29	3.29	—	—	1.54	1.54	4.83
Newton Lower Falls,	Brookline Jct.,	Riverside,	9.89	9.89	9.89	9.89	8.11	8.11	27.89
Saxonville,	Riverside,	Newton Lower Falls,	1.25	1.25	—	—	1.13	1.13	2.38
Spencer,	Natick,	Saxonville,	3.89	3.89	—	—	3.00	3.00	6.89
Chester & Bochet,	Spencer,	South Spencer,	2.18	2.18	—	—	1.22	1.22	3.40
North Brookfield,	Chester,	Chester Quarries,	5.27	5.27	—	—	1.17	1.17	6.44
Pittsfield & North Adams,	East Brookfield,	North Brookfield,	4.00	4.00	—	—	1.33	1.33	5.33
Prov., Webster & Springfield,	Pittsfield,	North Adams,	18.56	18.56	—	—	16.34	16.34	34.90
Ware River,	Webster Jct.,	Webster,	11.23	11.23	—	—	3.90	3.90	15.13
Boston & Lowell. (See Boston & Maine.)	Palmer,	Winchendon,	49.35	49.35	—	—	8.04	8.04	57.39
BOSTON & MAINE,	Boston,	Portland, Me.,	115.31	36.56	96.73 <sup>4</sup>	38.09 <sup>4</sup>	121.63	83.74	333.67
	Boston,	Portland, Me.,	108.29	41.45	65.10 <sup>5</sup>	42.48 <sup>5</sup>	99.68	70.70	273.07
	Jewett, Me.,	Intervale Jct., N. H.,	73.37	—	—	—	18.46	—	91.83
	No. Cambridge Jct.,	Northampton,	95.69	95.69	—	—	25.26	25.26	120.95
	Worcester,	Portland, Me.,	148.34	39.46	25.46	23.75	97.08	51.39	270.88

<sup>1</sup> Operated by electricity.

<sup>2</sup> Including 78.19 miles of third track and 23.32 miles of fourth track.

<sup>3</sup> Including 52.47 miles of third track and 23.32 miles of fourth track.

<sup>4</sup> Including 1.53 miles of third track.

<sup>5</sup> Including 1.03 miles of third track.

## Description of Railroads Owned and Operated — Continued.

RAILROADS AND BRANCHES. (LEASED ROADS IN ROMAN.) (BRANCHES IN ITALICS.)	1. — TERMINI.		2. — LENGTH OF LINE.		3. — SECOND TRACK.		4. — SIDE TRACK.		5. — Total Length computed as Single Track.
	From	To	Total.	In Massa- chusetts.	Total.	In Massa- chusetts.	Total.	In Massa- chusetts.	
BOSTON & MAINE — <i>Con.</i>									
<i>Charlestown.</i>	East Somerville,	Charlestown,	1.09	1.09	1.09	1.09	—	—	2.18
<i>Chelsea Beach,</i>	Revere Jet.,	Saugus River Jet.,	3.34	3.34	2.49	2.49	.19	.19	6.02
<i>Dover,</i>	Dover, N. H.,	Portsmouth, N. H.,	10.88	—	—	—	3.06	—	13.94
<i>Dover &amp; Winnepiscogee,</i>	Dover, N. H.,	Alton Bay, N. H.,	29.00	—	—	—	7.55	—	36.55
<i>Essex,</i>	Wenham,	Conomo,	6.00	6.00	—	—	1.93	1.93	7.93
<i>Georgetown,</i>	Bradford,	Georgetown,	5.87	5.87	—	—	1.39	1.39	7.26
<i>Gloucester,</i>	Beverly,	Rockport,	16.94	16.94	13.13	13.13	5.96	5.96	36.03
<i>Lawrence,</i>	Salem,	North Andover,	19.89	19.89	1.64	1.64	7.39	7.39	28.92
<i>Marblehead,</i>	Salem,	Marblehead,	3.52	3.52	—	—	.63	.63	4.15
<i>Medford,</i>	Medford Jet.,	Medford,	2.00	2.00	2.00	2.00	1.92	1.92	5.92
<i>Methuen,</i>	South Lawrence,	State Line, N. H.,	3.75	3.75	1.00	1.00	15.56	15.56	20.31
<i>Newburyport,</i>	Wakefield Jet.,	Newburyport,	30.37	30.37	—	—	6.92	6.92	37.29
<i>Newburyport City,</i>	Newburyport,	Newburyport,	1.97	1.97	—	—	1.32	1.32	3.29
<i>Orchard Beach,</i>	Old Orchard, Me.,	Camp Ellis, Me.,	3.27	—	—	—	.48	—	3.75
<i>Portsmouth,</i>	Portsmouth, N. H.,	N. Hampton, N. H.,	18.10	—	—	—	1.14	—	19.24
<i>Salisbury,</i>	Salisbury,	Amesbury,	3.79	3.79	—	—	2.44	2.44	6.23
<i>Saugus,</i>	Everett Jet.,	West Lynn,	9.55	9.55	9.46	9.46	5.90	5.90	24.91
<i>Somersworth,</i>	Rollinsford, N. H.,	Somersworth, N. H.,	2.75	—	—	—	1.83	—	4.58
<i>South Reading,</i>	Peabody,	Wakefield Jet.,	8.12	8.12	—	—	2.27	2.27	10.39
<i>Swampscott,</i>	Swampscott,	Marblehead,	3.96	3.96	.62	.62	1.20	1.20	5.78
<i>Union,</i>	Portland, Me.,	Portland, Me.,	1.12	—	—	—	—	—	1.12
<i>West Amesbury,</i>	Merrimac,	Newton Jet., N. H.,	4.45	2.13	—	—	.64	.42	5.09
<i>Wolborough,</i>	Sanbornville, N. H.,	Wolboro', N. H.,	12.03	—	—	—	.94	—	12.97
<i>Connection Lowell &amp; Lawrence with Lowell &amp; Andover R.R.,</i>	Lowell,	Lowell,	.25 <sup>2</sup>	.25 <sup>2</sup>	.37	.37	—	—	.62
<i>Boston &amp; Albany,*</i>	Winchendon,	Winchendon,	.21	.21	—	—	—	—	.21
<i>Boston &amp; Lowell,</i>	Boston,	Lowell,	26.27	26.27	26.27	26.27	73.10	65.70	125.64
<i>Bedford &amp; Billerica,</i>	Bedford,	North Billerica,	7.63	7.63	—	—	.68	.68	8.31
<i>Lawrence,</i>	Wilmington,	Wilmington Jet.,	3.21	3.21	—	—	1.97	1.97	5.18



## Description of Railroads Owned and Operated — Continued.

RAILROADS AND BRANCHES. (LEASED ROADS IN ROMAN.) (BRANCHES IN ITALICS.)	1. — TERMINI.		2. — LENGTH OF LINE.		3. — SECOND TRACK.		4. — SIDE TRACK.		5. — Total Length computed as Single Track.
	From	To	Total	In Massa- chusetts.	Total	In Massa- chusetts.	Total	In Massa- chusetts.	
BOSTON & MAINE — <i>Con.</i>									
Fitchburg, . . . . .	Boston, . . . . .	Fitchburg, . . . . .	49.65	49.65	55.35 <sup>1</sup>	55.35 <sup>1</sup>	98.17	98.17	203.17
	Greenfield, . . . . .	Rotterdam Jct., N. Y., . . . . .	105.25	44.01	70.99	44.01	104.52	37.71	280.76
	State Line, Vt., . . . . .	Troy, N. Y., . . . . .	40.30	—	15.55	—	9.51	—	65.36
	South Ashburnham, . . . . .	Bellows Falls, Vt., . . . . .	53.85	10.76	—	—	27.73	4.65	81.58
	South Ashburnham, . . . . .	Ashburnham, . . . . .	2.59	2.59	—	—	.35	.35	2.94
	Ayer, . . . . .	Greenville, N. H., . . . . .	23.64	14.06	—	—	5.45	2.76	29.09
	Charlestown, . . . . .	Charlestown, . . . . .	.66	.66	.49	.49	—	—	1.15
	South Acton, . . . . .	Marlborough, . . . . .	12.35	12.35	—	—	4.21	4.21	16.56
	Milford, . . . . .	Milford, N. H., . . . . .	21.73	9.56	—	—	5.06	2.27	26.79
	Squannacook Jct., . . . . .	Peterboro', N. H., . . . . .	15.93	2.25	—	—	2.43	—	18.36
	Winchendon, . . . . .	Saratoga, N. Y., . . . . .	17.50	—	—	—	3.43	—	20.93
	Saratoga Jct., N. Y., . . . . .	Schuylerville, N. Y., . . . . .	8.32	—	—	—	1.38	—	9.70
	Schuylerville, . . . . .	Waltham, . . . . .	6.63	6.63	6.48	6.48	5.80	5.80	18.91
	West Cambridge, . . . . .	Winchendon, . . . . .	35.74	35.74	—	—	14.95	14.95	50.69
	Worcester, . . . . .	Sherbrooke, P. Q., . . . . .	2.95	.59	—	—	—	—	2.95
	Grand Trunk,* . . . . .	Horn Pond, . . . . .	.59	.59	—	—	—	—	.59
	Horn Pond Branch, . . . . .	Kennebunkport, Me., . . . . .	4.50	8.85	7.28	7.28	5.86	5.86	5.53
	Kennebunk & Kennebunkport, . . . . .	Lowell Jct., N. H., . . . . .	8.85	—	—	—	11.15	—	21.99
	Lowell, . . . . .	Manchester, N. H., . . . . .	22.39	—	—	—	8.09	—	33.54
	Manchester & Lawrence, . . . . .	Canada Line, . . . . .	31.95	—	—	—	1.00	—	40.04
	Massawippi Valley, . . . . .	Beebe Jct., P. Q., . . . . .	3.51	—	—	—	3.44	—	4.51
	<i>Stanstead,</i> . . . . .	North Acton, . . . . .	20.12	15.14	—	—	13.45	1.89	23.56
	Nashua & Acton, . . . . .	Nashua Jct., N. H., . . . . .	14.50	9.25	14.50	9.25	8.41	8.41	42.45
	Nashua & Lowell, . . . . .	Nashua, N. H., . . . . .	4.21	4.21	—	—	—	—	4.21
	N. Y., N. H. & Hartford,* . . . . .	Concord Jct., . . . . .	69.50	—	—	—	25.07	—	94.57
	Northern, . . . . .	White River Jct., Vt., . . . . .	13.41	—	—	—	1.10	—	14.51
	Bristol, . . . . .	Bristol, N. H., . . . . .	56.30	—	—	—	11.90	—	68.20
	Concord & Claremont, . . . . .	Claremont Jct., N. H., . . . . .	18.60	—	—	—	2.28	—	16.88
	Concord, N. H., . . . . .	Hillsboro' Bridge, N. H., . . . . .	14.51	—	—	—	2.02	—	20.53
	Contoocook, N. H., . . . . .	Hillsboro', N. H., . . . . .	—	—	—	—	—	—	—
	Peterboro' & Hillsboro', . . . . .	Peterboro', N. H., . . . . .	—	—	—	—	—	—	—



## Description of Railroads Owned and Operated — Continued.

RAILROADS AND BRANCHES. (LEASED ROADS IN ROMAN.) (BRANCHES IN ITALICS.)	1. — TERMINI.		2. — LENGTH OF LINE.		3. — SECOND TRACK.		4. — SIDE TRACK.		5. — Total Length computed as Single Track.
	From	To	Total	In Massachusetts.	Total.	In Massachusetts.	Total.	In Massachusetts.	
NANTUCKET. <sup>1</sup>	Nantucket, .	Siasconset, .	9.12	9.12	—	—	.15	.15	9.27
NASHUA & ACTON. (See <i>Boston &amp; Maine</i> .)	—	—	—	—	—	—	—	—	—
NASHUA & LOWELL. (See <i>Boston &amp; Maine</i> .)	—	—	—	—	—	—	—	—	—
NEW LONDON NORTHERN (operated by the <i>Central Vt. R.R. Co.</i> ),	New London, Ct.,	Brattleboro', Vt., .	121.00	54.90	—	—	38.70	13.50	159.70
	Woodlawn Jct., N. Y.,	Providence, R. I., .	173.45	—	—	—	208.26	—	678.47
	Boston,	Hopewell Jct., N. Y.,	213.08	51.28	296.76 <sup>2</sup>	51.28	157.92	40.13	511.42
	New Haven, Ct.,	Willimantic, Ct.,	51.27	—	—	—	17.82	—	74.32
	Cedar Hill, Ct.,	Springfield, .	60.27	5.95	60.33	5.98	89.42	8.71	210.02
	New Haven, Ct.,	Pittsfield, .	119.97	36.69	.83	—	56.83	22.64	177.63
	New Haven, Ct.,	Shelburne Jct.,	94.12	43.38	—	—	39.92	20.71	134.04
	Naugatuck Jct., Ct.,	Winsted, Ct.,	56.03	—	27.35	—	42.92	—	126.30
	Belin, Ct.,	Middletown, Ct.,	9.70	—	—	—	7.32	—	17.02
	Bridgeport, Ct.,	Botsford, Ct.,	14.66	—	—	—	5.29	—	19.95
	Brookfield, Ct.,	Danbury, Ct.,	3.98	—	—	—	1.67	—	5.65
	Turnersville, Ct.,	Colchester, Ct.,	3.59	—	—	—	1.07	—	4.66
Connection with <i>Pross. &amp; Wor. R.R., B. &amp; P., etc.</i> ,	E. Providence, R. I.,	E. Providence, R. I.,	30	—	.30	—	—	—	60
Danbury,	Danbury, Ct.,	South Norwalk, Ct.,	22.99	—	—	—	15.34	—	38.33
Dedham,	Dedham, .	Dedham, .	2.00	2.00	—	—	.11	.11	2.11
Dedham, & Ashland,	Dedham Jct.,	Dedham, .	1.53	1.53	—	—	.57	.57	2.10
Franklin,	Franklin Jct.,	Ashland, .	19.78	19.78	—	—	3.77	3.77	23.55
Franklin,	Valley Falls, R. I.,	Franklin, .	13.59	6.52	—	—	1.69	.86	15.28
Harbor Jct.,	Auburn, R. I.,	Providence, R. I.,	3.58	—	1.69	—	1.26	—	6.53
Litchfield,	Hawleyville, Ct.,	Litchfield, Ct.,	32.28	—	—	—	4.47	—	36.75
Melrose,	Melrose, Ct.,	Rockville, Ct.,	7.22	—	—	—	.58	—	7.80
Meriden,	Westfield, .	Waterbury, Ct.,	24.19	—	—	—	6.15	—	30.34



Needham,	West Roxbury,	Needham,	4.53	4.10	4.10	4.10	1.13	8.76
Needham,	Needham Jct.,	Cook Street,	3.90	—	—	—	1.80	5.70
Berlin, Ct.,	Berlin, Ct.,	New Britain, Ct.,	2.50	2.50	—	—	7.64	12.64
New Canaan,	New Canaan, Ct.,	New Canaan, Ct.,	7.92	—	—	—	1.43	9.35
New Hartford,	Farmington, Ct.,	New Hartford, Ct.,	15.19	—	—	—	2.20	17.39
Pascoot,	Providence, R. I.,	Douglas Jct.,	27.73	1.63	—	—	6.63	34.36
Pawtucket Valley,	Auburn, R. I.,	Hope, R. I.,	10.36	—	—	—	1.91	12.27
Ridgefield,	Branchville, Ct.,	Ridgefield, Ct.,	4.16	—	—	—	1.17	5.33
Rockville,	Vernon, Ct.,	Rockville, Ct.,	4.60	—	—	—	2.70	7.30
South Boston Freight,	Boston,	South Boston,	1.04	1.04	—	—	37.01	39.09
Southbridge,	E. Thompson, Ct.,	Southbridge,	17.36	—	—	—	3.57	20.93
Springfield,	East Hartford, Ct.,	Springfield Jct.,	28.31	—	—	—	8.18	36.49
State Line,	Van Deusenville Jct.,	State Line, Mass.,	9.54	—	—	—	—	9.54
Suffield,	Windsor Locks, Ct.,	Suffield, Ct.,	4.27	—	—	—	1.17	5.44
Turner's Falls,	South Deerfield,	Turner's Falls,	9.99	—	—	—	2.77	12.76
Tunnel,	Providence, R. I.,	East Providence, R. I.,	1.88	2.10 <sup>3</sup>	—	—	.96	4.94
Valley,	Hartford, Ct.,	Fenwick, Ct.,	46.20	—	—	—	18.12	64.32
Watertown,	Waterbury, Ct.,	Watertown, Ct.,	4.82	—	—	—	.87	5.69
Wicopee, <sup>4</sup>	Wicopee, N. Y.,	Fishkill Landing, N. Y.,	1.65	—	—	—	11.07	12.72
Wickford,	Wickford Jct., R. I.,	Wickford Landing, R. I.,	3.42	—	—	—	.95	4.37
Williamsburgh,	Northampton,	Williamsburgh,	7.70	—	—	—	2.15	9.85
Williamantic,	Providence, R. I.,	Williamantic, Ct.,	57.76	—	—	—	22.86	81.89
Wilson's Point,	South Norwalk, Ct.,	Wilson's Point, Ct.,	2.44	1.27	—	—	5.43	7.87
Woonsocket,	Woonsocket, R. I.,	Needham Jct.,	24.77	—	—	—	8.60	33.37
Boston & Albany,*	Woonsocket, R. I.,	Harrisville, R. I.,	9.45	—	—	—	1.22	10.67
Boston & Albany,*	Ashtand Jct.,	Ashtand,	.22	—	—	—	—	.22
Boston & Albany,*	Cook Street,	Newton Highlands,	.31	—	—	—	—	.31
Boston & Albany,*	Springfield Jct.,	Springfield,	.59	—	—	—	—	.59
Boston & Albany,*	Springfield Jct.,	Springfield,	.17	.42 <sup>5</sup>	—	—	—	.59
Boston & Albany,*	Worcester Jct.,	Worcester,	.15	.15	—	—	—	.30
Boston & Maine,*	Lowell Jct.,	Lowell,	.57	—	—	—	—	.57
Boston & Maine,*	Shelburne Jct.,	Shelburne Falls,	4.67	4.64	—	—	—	9.31
Boston & Maine,*	Stirling Jct.,	Worcester,	11.94	11.94	—	—	—	23.88

<sup>4</sup> Operated by the Central New England.<sup>5</sup> Including .19 of a mile of third track.

\* Trackage rights.

<sup>1</sup> A narrow-gauge railroad.<sup>2</sup> Including 62.26 miles of third track and 61.87 miles of fourth track.<sup>3</sup> Including .11 of a mile of third and .11 of a mile of fourth track.

## Description of Railroads Owned and Operated — Continued.

RAILROADS AND BRANCHES. (LEASED ROADS IN ROMAN.) (BRANCHES IN ITALICS.)	1. — TERMINI.		2. — LENGTH OF LINE.		3. — SECOND TRACK.		4. — SIDE TRACK.		5. — Total Length computed as Single Track.
	From	To	Total.	In Massachusetts.	Total.	In Massachusetts.	Total.	In Massachusetts.	
NEW YORK, NEW HAVEN & HARTFORD — <i>Con.</i> Boston & Providence, <i>Connection with Midland Div.,</i> . . . . . <i>Dedham,</i> . . . . . <i>India Point,</i> . . . . . <i>Stoughton,</i> . . . . . <i>West Roxbury,</i> . . . . . Boston Terminal,* . . . . . Chatham, . . . . . Central New England,* . . . . . Harlem River & Port Chester, Holyoke & Westfield, New York & Harlem,* . . . . . Norwich & Worcester, . . . . . <i>Wye connection with P. &amp; W. R.R. and N. &amp; W. R.R.,</i> . . . . .	Boston, . . . . . Readville, . . . . . Readville, . . . . . East Jct., . . . . . Canton Jct., . . . . . Forest Hills Station, . . . . . Boston Station, . . . . . Chatham, . . . . . Hopewell Jct., N. Y., . . . . . Poughkeepsie Jct., N. Y., . . . . . Harlem River, N. Y., . . . . . Westfield, . . . . . Grand Central Station, N. Y., . . . . . Worcester, . . . . . Worcester, . . . . . Boston, . . . . . Braintree Highlands, . . . . . Middleborough, . . . . . Raynham, . . . . . Braintree, . . . . . South Braintree, . . . . . Frammingham, . . . . . New Bedford, . . . . .	Providence, R. I., . . . . . Readville, . . . . . Dedham, . . . . . India Point, R. I., . . . . . Stoughton, . . . . . Dedham, . . . . . Fort Point Channel, . . . . . Harwich, . . . . . Poughkeepsie Jct., N. Y., . . . . . Poughkeepsie Jct., N. Y., . . . . . New Rochelle, N. Y., . . . . . Holyoke, . . . . . Woodlawn Jct., N. Y., . . . . . Groton Jct., Ct., . . . . . Worcester, . . . . . Newport, R. I., . . . . . Somerset Jct., . . . . . Provincetown, . . . . . Whittenton Jct., . . . . . Kingston, . . . . . Plymouth, . . . . . Lowell, . . . . . Fitchburg, . . . . .	41.89 <sup>1</sup> 1.40 2.47 8.05 4.05 5.37 4.42 7.07 12.00 1.30 11.17 10.59 12.14 70.91 13 67.60 36.31 85.66 3.38 32.31 26.04 26.12 91.25	38.70 1.40 2.47 3.49 4.05 5.37 4.42 7.07 — — — 10.59 — 17.75 13 51.41 36.31 85.66 3.38 32.31 26.04 26.12 91.25	68.91 <sup>2</sup> 1.40 2.47 — 4.05 5.37 1.26 <sup>4</sup> — — — 50.55 <sup>5</sup> — 35.63 <sup>6</sup> — 13 51.63 <sup>7</sup> 27.29 <sup>8</sup> 19.72 3.38 16.61 14.15 4.36 69.44 <sup>9</sup>	61.42 <sup>3</sup> 1.40 2.47 — 4.05 5.37 1.26 <sup>4</sup> — — — — — — — 13 51.63 <sup>7</sup> 27.29 <sup>8</sup> 19.72 3.38 16.61 14.15 4.36 69.44 <sup>9</sup>	67.78 — 18.40 7.78 3.37 4.48 — 1.00 — — 88.46 10.72 26.93 39.07 — 66.38 34.00 14.96 1.18 9.58 8.64 13.54 73.03	50.32 — 18.40 2.29 3.37 4.48 — 1.00 — — — 10.72 — — — 59.46 34.00 14.96 1.18 9.58 8.64 13.54 73.03	178.58 2.80 23.34 15.83 11.47 15.22 1.68 8.07 12.00 1.30 150.18 21.31 74.70 109.98 26 185.61 97.60 120.34 7.94 58.50 48.83 44.02 233.72

Attleborough,	.	.	Attleboro' Branch Jct.,	.	Attleborough,	.	8.60	—	—	3.45	12.05
Bridgewater,	.	.	Whitman,	.	Bridgewater Iron Works,	.	6.12	—	—	1.27	7.39
Brookton,	.	.	Elmwood,	.	Westdale,	.	.75	—	—	—	.75
<i>Connection with Boston</i>											
Dix,	.	.	Boston,	.	Boston,	.	.43	.43	.43	.24	1.10
Dorchester & Milton,	.	.	Dorchester,	.	Matapan,	.	3.30	.58 <sup>10</sup>	.58 <sup>10</sup>	1.64	5.52
Easton,	.	.	Matfield,	.	Easton,	.	7.56	—	—	1.04	8.60
<i>Extension to Plymouth &amp; Mid R.R.,</i>											
Fairhaven,	.	.	Middleborough,	.	Middleborough,	.	.42	—	—	—	.42
Fall River,	.	.	Fairhaven,	.	Tremont,	.	15.17	—	—	1.49	16.66
Granite,	.	.	Fall River,	.	New Bedford,	.	12.25	—	—	4.25	16.50
Hanover,	.	.	Atlantic,	.	Braintree,	.	5.41	—	—	3.16	8.57
Hyannis,	.	.	North Abington,	.	Hanover,	.	7.80	—	—	3.17	10.97
Lancaster,	.	.	Yarmouth,	.	Hyannis,	.	5.05	—	—	2.77	7.82
Marlborough,	.	.	Lancaster Branch Jct.,	.	Lancaster Mills,	.	1.63	—	—	.38	2.01
Middleboro' & Taunton,	.	.	Marlborough Jct.,	.	Marlborough,	.	1.47	—	—	1.42	2.89
Nantasket Beach,	.	.	Middleborough,	.	Taunton Jct.,	.	8.04	—	—	1.47	9.51
Prison,	.	.	Nantasket Jct.,	.	Fenbortou,	.	6.95	6.88	6.88	3.34	17.17
Shawmut,	.	.	South Framingham,	.	Reformatory,	.	.65	—	—	.54	1.19
Sterling,	.	.	Harrison Square,	.	Shawmut Jct.,	.	2.39	2.39	2.39	.52	5.30
Stoughton,	.	.	Pratts' Jct.,	.	Sterling Jct.,	.	5.03	—	—	1.54	6.57
Walpole & Dedham,	.	.	Stoughton Jct.,	.	Stoughton,	.	1.65	1.65	1.65	.61	3.91
Warren,	.	.	Walpole Jct.,	.	Norwood Jct.,	.	5.76	—	—	5.25	11.01
Whitenton Y.,	.	.	Fall River,	.	Warren,	.	7.95	—	—	1.27	9.22
Wrentham,	.	.	Attleborough Br. Jct.,	.	Whitenton,	.	.98	—	—	—	.98
			Walpole Jct.,	.	No. Attleborough,	.	11.88	—	—	3.95	15.83

<sup>6</sup> Including 11.83 miles of third track and 11.89 miles of fourth track.

<sup>7</sup> Including 2.41 miles of third track and 2.39 miles of fourth track.

<sup>8</sup> Including 2.74 miles of third track and 2.74 miles of fourth track.

<sup>9</sup> Including .91 of a mile of third track.

<sup>10</sup> Including .28 of a mile of third track.

\* Trackage rights.

<sup>1</sup> Including only one-half the length of joint tracks between Providence station and Boston switch, so-called, viz.: 5.00 miles of first or single track; 5.00 miles of second track; 4.30 miles of third track; 4.30 miles of fourth track; these distances being the total length.

<sup>2</sup> Including 13.44 miles of third track and 13.58 miles of fourth track.

<sup>3</sup> Including 11.29 miles of third track and 11.43 miles of fourth track.

<sup>4</sup> Including .42 of a mile of third track and .42 of a mile of fourth track.

<sup>5</sup> Including 10.79 miles of third track, 10.79 miles of fourth track, 8.90 miles of fifth track and 8.90 miles of sixth track.

Description of Railroads Owned and Operated — Concluded.

[illegible]

UNION FREIGHT, VERMONT & MASSACHUSETTS. (See <i>Boston &amp; Maine</i> ) WARE RIVER. (See <i>Boston &amp; Albany — N. Y. Central &amp; H. R., Lessee.</i> )	Boston,	Boston,	.	.	.	2.30	2.30	.83	.83	1.03	1.03	4.16
	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-
TOTALS,	.	.	.	.	.	4,917.65	2,134.68	1,940.00	1,060.18	3,222.40	1,663.32	10,080.05

<sup>1</sup> Including only one-half the length of joint tracks between Providence station and Boston switch, so-called, viz.: 5.00 miles of first or single track; 5.00 miles of second track; 4.30 miles of third track; 4.30 miles of fourth track; these distances being the total length.

<sup>2</sup> Including 2.87 miles of third track and 2.87 miles of fourth track.

<sup>3</sup> Including .72 of a mile of third track and .72 of a mile of fourth track.

NOTE. — The 1,940.00 miles of second track owned and operated, as given in the above totals, include 194.83 miles of third track, 132.00 miles of fourth track, 8.90 miles of fifth track and 8.90 miles of sixth track. The 1,060.18 miles of second track in *Massachusetts* include 78.47 miles of third track and 43.01 miles of fourth track.

## TABULATED STATEMENTS FROM RETURNS OF RAILROAD CORPORATIONS.

OPERATING RAILROADS.	6. — ATTLEBOROUGH BRANCH.*	7. — BOSTON & ALBANY.†	8. — BOSTON & MAINE.	9. — BOSTON, REVERE BEACH & LYNN.‡	10. — CENTRAL VERMONT.§
<b>ASSETS.</b>					
Road and equipment, . . . . .	\$153,703 75	—	\$82,539,483 14	\$2,073,365 59	—
Securities, . . . . .	—	—	8,288,814 75	—	—
Other investments, . . . . .	—	—	1,508,712 45	58,861 05	—
Working assets, . . . . .	9,599 56	—	15,985,214 62	257,793 14	—
Accrued income not due, . . . . .	—	—	682 18	—	—
Deferred debit items, . . . . .	10 62	—	5,427,699 86	—	—
GRAND TOTAL, . . . . .	163,313 93	—	113,750,607 00	2,390,019 78	—
<b>LIABILITIES.</b>					
Capital stock, common, . . . . .	\$131,700 00	—	\$38,912,540 70 <sup>1</sup>	\$850,000 00	—
preferred, . . . . .	—	—	3,149,800 00	—	—
<i>Total capital stock,</i> . . . . .	131,700 00	—	42,062,340 70	850,000 00	—
Funded debt, . . . . .	—	—	43,849,000 00	850,000 00	—
Working liabilities, . . . . .	902 88	—	14,569,977 76	359,512 48	—
Accrued liabilities not due, . . . . .	1,773 01	—	1,359,285 79	—	—
Deferred credit items, . . . . .	6,497 22	—	1,949,754 09	—	—
Appropriated surplus, . . . . .	—	—	1,221,920 23	261,313 08	—
Premiums on capital stock, . . . . .	—	—	6,453,416 02	—	—
Profit and loss (balance), . . . . .	22,440 82	—	2,284,912 41	69,194 22	—
GRAND TOTAL, . . . . .	163,313 93	—	113,750,607 00	2,390,019 78	—
<b>INCOME.</b>					
Passenger revenue, . . . . .	\$29,003 97	\$5,502,049 39	\$15,524,431 40	\$898,626 84	\$202,891 69
Excess baggage revenue, . . . . .	—	50,128 12	111,858 48	—	1,532 30
Mail revenue, . . . . .	—	380,557 86	444,848 67	—	16,512 00

Express revenue, . . . . .	36 48	434,105 37	1,256,216 63	-	24,559 91
Milk revenue (on passenger trains), . . . . .	-	4,511 55	304,364 06	-	6,500 23
Other passenger train revenue, . . . . .	-	80,882 85	100,582 27 <sup>2</sup>	-	1,330 93
<i>Total passenger service train revenue,</i>					
Freight revenue, . . . . .	29,040 45	6,452,235 14	17,742,301 51	898,626 84	253,326 66
Switching and other transportation revenue,	2,685 00	7,725,984 75	25,891,481 10	-	829,791 86
<i>Total revenue from transportation,</i>					
Other revenue from operations, . . . . .	31,725 45	227,842 63	455,820 08	-	10,566 29
Joint facilities revenue, . . . . .	76 62	127,839 57	723,207 59	898,626 84	1,093,684 81
<i>Total operating revenues,</i>				21,294 15	8,592 44
<i>Total other income,</i>				-	-
Gross Income, . . . . .	31,802 07	14,593,463 05	44,815,084 40	919,920 99	1,102,277 25
	246 07	235,293 27	929,740 24	-	14,452 77
	32,048 14	14,828,756 32	45,744,824 64	919,920 99	1,116,730 02
EXPENDITURES.					
Operating expenses, . . . . .	\$13,471 67	\$11,502,217 08	\$35,148,703 13	\$797,419 20	\$910,250 32
Taxes, . . . . .	2,602 74	911,227 37	2,089,905 26	22,698 54	46,346 53
Rents for lease of road, . . . . .	-	2,940,820 19	5,385,053 56	-	203,952 50
Hire of equipment, . . . . .	900 00	608,826 27	848,580 82	-	64,349 06
Joint facilities and other rents, . . . . .	-	178,879 49	53,637 07	-	26,450 00
Interest on funded and other debts, . . . . .	-	41,377 59	1,834,171 31	46,879 87	-
Other deductions from income, . . . . .	-	122,840 01	28,785 00	-	-
Dividends paid, . . . . .	10,536 00	-	-	51,000 00	-
Gross EXPENDITURES, . . . . .	27,510 41	16,306,188 00	45,388,836 15	917,997 61	1,251,348 41

\* Operated by electricity.

† Operations of the New York Central &amp; Hudson River, lessee. For financial statement of the Boston &amp; Albany R.R. Co., see column 17.

‡ A narrow-gauge railroad.

§ Operating the New London Northern under lease.

¹ Includes \$382,750 "receipts outstanding for installments paid."

² Includes \$651.50 parlor car revenue.

Tabulated Statements from Returns of Railroad Corporations — Continued.

OPERATING RAILROADS.	6. — ATTLEBOROUGHT BRANCH — Con.	7. — BOSTON & ALBANY — Con.	8. — BOSTON & MAINE — Con.	9. — BOSTON, REVERE BEACH & LYNN — Con.	10. — CENTRAL VERMONT — Con.
CONDENSED EXHIBIT FOR THE YEAR.					
Net operating revenue, . . . . .	\$18,330 40	\$3,091,245 97	\$9,666,381 27	\$122,501 79	\$192,026 93
Net revenue from outside operations, . . . . .	—	68,397 24	68,235 93	—	—
Income from other sources, . . . . .	246 07	166,896 03	861,504 31	—	14,452 77
Total income above operating expenses, . . . . .	18,576 47	3,326,539 24	10,596,121 51	122,501 79	206,479 70
Taxes, rents, interest and other deductions, . . . . .	3,502 74	4,803,970 92	10,240,133 02	69,578 41	341,098 09
Net corporate income, . . . . .	15,073 73	1,477,431 68d	355,988 49	52,923 38	134,618 39d
Amount of dividends declared, . . . . .	10,536 00	—	—	51,000 00	—
Percentage of dividends declared, . . . . .	8.0	—	— <sup>2</sup>	6.0	—
Surplus for the year, . . . . .	4,537 73	1,477,431 68d	355,988 49	1,923 38	134,618 39d
Surplus, June 30, 1910, . . . . .	18,045 67	—	3,610,423 81	67,270 84	—
Additions during the year, . . . . .	—	—	474,510 00	—	—
Deductions during the year, . . . . .	142 58	—	2,156,009 89 <sup>3</sup>	—	—
TOTAL SURPLUS, JUNE 30, 1911, . . . . .	22,440 82	—	2,284,912 41	69,194 22	—
VOLUME OF TRAFFIC, ETC.					
Passengers carried, . . . . .	581,681	11,402,039	48,666,086	18,160,935 <sup>7</sup>	491,378
average length of journey, . . . . .	3.72 miles.	27.28 miles.	17.72 miles.	4.81 miles.	15.94 miles.
Total passenger mileage, . . . . .	2,163,853	311,075,714	862,472,977	87,360,162	7,830,698
Average receipts per mile for passengers, . . . . .	1.340 cents.	1.769 cents.	1.801 cents.	1.029 cents.	2.591 cents.
Tons of freight hauled, . . . . .	23,663	7,759,726	23,064,301	—	1,857,343
average length of haul, . . . . .	3.12 miles.	116.87 miles.	102.54 miles.	—	41.66 miles.
Total freight mileage, . . . . .	73,803	906,851,175	2,365,046,613	—	77,372,915
Average receipts per ton of freight per mile, . . . . .	3.638 cents.	0.852 cents.	1.095 cents.	—	1.073 cents.
Passenger train miles, . . . . .	91,736	4,181,396	12,533,055	928,832	299,677
Freight train miles, . . . . .	2,620	3,206,475	9,383,463	—	371,578



Mixed train miles, . . . . .	-	37,294	176,988	-	-	304
Special train miles, . . . . .	-	5,691	119,481	-	-	671,559
<i>Total revenue train miles,</i> . . . . .	94,356	7,431,126	22,212,987	928,832	-	135,249 <sup>s</sup>
Non-revenue service train miles, . . . . .	-	2,401,915 <sup>1</sup>	7,284,570 <sup>4</sup>	5,013	-	806,808
<b>TOTAL REVENUE AND NON-REVENUE TRAIN MILES,</b> . . . . .	94,356	9,833,041	29,497,557	933,845	-	
<b>EQUIPMENT.</b>						
Number of locomotives, . . . . .	1	365	1,232	21	19	
of passenger and combination cars, . . . . .	2	351	1,386	92	18	
of dining, parlor and sleeping cars, . . . . .	-	3	21	-	-	
of baggage, express and postal cars, . . . . .	-	86	346	-	2	
of other passenger service cars, . . . . .	-	11	157	-	-	
of freight cars, . . . . .	-	2,629	25,880	-	12	
of officers' and pay cars, . . . . .	-	3	8 <sup>6</sup>	-	-	
of gravel and other cars, . . . . .	-	418	1,549	27	32	
<b>MISCELLANEOUS.</b>						
Whole number of stockholders, . . . . .	6	-	7,295	200	-	
Total miles of road operated, . . . . .	3.72	392.22	2,290.33 <sup>6</sup>	13.20	121.00	
operated in Massachusetts, . . . . .	3.72	337.01	787.39	13.20	54.90	
Number of employees, . . . . .	23	7,902	28,743	685	737	

<sup>1</sup> Includes 2,158,626 revenue switching locomotive miles.<sup>2</sup> At rate of six per cent and four per cent on varying amounts of common; six per cent on preferred capital stock and one and one-half per cent and one per cent on varying amounts of "outstanding receipts for instalments paid" on capital stock.<sup>3</sup> Includes \$1,958,971.45 dividends paid from surplus.<sup>4</sup> Includes 6,804,440 revenue switching locomotive miles.<sup>5</sup> Includes 1 air-brake instruction car.<sup>6</sup> Includes 47.53 miles electric street railway.<sup>7</sup> Computed on the basis of five-cent tickets collected.<sup>8</sup> Includes 127,320 revenue switching locomotive miles.<sup>d</sup> Deficit.

Tabulated Statements from Returns of Railroad Corporations — Continued.

OPERATING RAILROADS.		11. — GRAFTON & UPTON.	12. — HOOSAC TUNNEL & WIL- MINGTON.*	13. — NANTUCKET.*	14. — NEW YORK, NEW HAVEN & HARTFORD.	15. — UNION FREIGHT.
ASSETS.						
Road and equipment,	.	\$651,519 61	\$511,080 46	\$125,000 00	\$188,322,303 13 <sup>2</sup>	\$420,504 89
Securities,	.	—	—	—	138,730,413 53	—
Other investments,	.	—	—	—	74,707,975 76	—
Working assets,	.	20,957 37	93,240 80	805 47	82,586,657 20	23,038 58
Accrued income not due,	.	—	—	—	935,660 25	—
Deferred debit items,	.	—	—	—	6,835,165 64	—
Profit and loss (balance),	.	—	—	260 06	—	—
GRAND TOTAL,	.	672,476 98	604,321 26	126,065 53	492,118,175 51	443,543 47
LIABILITIES.						
Capital stock, common,	.	\$250,000 00	\$250,000 00	— <sup>1</sup>	\$178,798,500 00	\$300,000 00
preferred,	.	—	—	—	—	—
<i>Total capital stock,</i>	.	250,000 00	250,000 00	— <sup>1</sup>	178,798,500 00	300,000 00
Funded debt,	.	268,000 00	236,000 00	—	213,029,003 98	60,000 00 <sup>5</sup>
Working liabilities,	.	74,000 00	1,349 83	\$126,065 33	36,047,839 06	3,041 31
Accrued liabilities not due,	.	—	3,933 33	—	12,365,864 98 <sup>3</sup>	3,450 00
Deferred credit items,	.	—	—	—	2,104,916 74	—
Appropriated surplus,	.	49,519 61	—	—	3,103,246 59	25,453 95
Premiums on capital stock,	.	—	—	—	32,393,789 00 <sup>4</sup>	—
Profit and loss (balance),	.	30,957 37	113,038 10	—	14,275,015 16	51,598 21
GRAND TOTAL,	.	672,476 98	604,321 26	126,065 53	492,118,175 51	443,543 47
INCOME.						
Passenger revenue,	.	\$36,800 58	\$19,157 12	\$5,321 65	\$36,212,670 51	—
Excess baggage revenue,	.	—	118 24	—	188,751 43	—
Mail revenue,	.	1,000 01	1,256 00	—	646,845 95	—

Express revenue, . . . . .	3,801 38	2,709 32	711 56	2,865,646 79	-
Milk revenue (on passenger trains), . . . . .	-	-	-	115,595 83	-
Other passenger train revenue, . . . . .	724 00	-	-	125,405 47	-
<i>Total passenger service train revenue,</i> . . . . .	42,385 97	23,240 68	6,033 21	30,154,915 98	-
Freight revenue, . . . . .	79,820 99	67,092 54	1,109 72	30,329,092 32	\$111,691 32
Switching and other transportation revenue, . . . . .	-	273 27	-	258,400 27	-
<i>Total revenue from transportation,</i> . . . . .	122,206 96	90,606 49	7,142 93	60,742,408 57	111,691 32
Other revenue from operations, . . . . .	7,766 89	937 00	1,374 41	1,069,503 13	1,781 00
Joint facilities revenue, . . . . .	-	-	-	341,523 10	-
<i>Total operating revenues,</i> . . . . .	129,973 85	91,543 49	8,517 34	62,153,434 80	113,472 32
<i>Total other income,</i> . . . . .	-	6,228 26	-	10,578,721 02	363 67
GROSS INCOME, . . . . .	129,973 85	97,771 75	8,517 34	72,732,155 82	113,835 99
EXPENDITURES.					
Operating expenses, . . . . .	\$103,603 83	\$59,967 96	\$8,945 56	\$40,898,632 63	\$82,691 08
Taxes, . . . . .	640 62	2,053 66	-	3,578,363 15	7,593 64
Rents for lease of road, . . . . .	-	-	-	4,478,324 32	-
Hire of equipment, . . . . .	-	-	-	-	891 10
Joint facilities and other rents, . . . . .	-	-	-	1,874,134 74	-
Interest on funded and other debts, . . . . .	13,728 47	11,850 00	-	10,710,388 97	2,400 00
Other deductions from income, . . . . .	-	-	-	5,000 00	-
Dividends paid, . . . . .	-	25,000 00	-	12,454,852 00	20,090 00
GROSS EXPENDITURES, . . . . .	117,972 92	98,871 62	8,945 56	73,999,695 81	113,665 82

\* A narrow gauge railroad.

<sup>1</sup> No capital stock as yet issued.

<sup>2</sup> Includes \$6,333,047.41 for "floating equipment, street railways and other property."

<sup>3</sup> Includes \$9,208,672.41 "equipment and personal property leased."

<sup>4</sup> Since July 1, 1909.

<sup>5</sup> Real estate mortgage.

*Tabulated Statements from Returns of Railroad Corporations — Continued.*

OPERATING RAILROADS.	11. — GRAFTON & UPTON — Con.	12. — HOOSAC TUNNEL & WIL- MINGTON — Con.	13. — NANTUCKET — Con.	14. — NEW YORK, NEW HAVEN & HARTFORD — Con.	15. — UNION FREIGHT — Con.
CONDENSED EXHIBIT FOR THE YEAR.					
Net operating revenue, . . . . .	\$26,370 02	\$31,575 53	\$428 22 <i>d</i>	\$21,254,802 17	\$30,781 24
Net revenue from outside operations, . . . . .	—	—	—	1,399,792 67	—
Income from other sources, . . . . .	—	6,228 26	—	9,178,928 35	363 67
<i>Total income above operating expenses, . . . . .</i>	26,370 02	37,803 79	428 22 <i>d</i>	31,833,523 19	31,144 91
Taxes, rents, interest and other deductions, . . . . .	14,369 09	13,903 66	—	20,646,211 18	10,884 74
Net corporate income, . . . . .	12,000 93	23,900 13	428 22 <i>d</i>	11,187,312 01	20,260 17
Amount of dividends declared, . . . . .	—	25,000 00	—	12,454,852 00	20,090 00
Percentage of dividends declared, . . . . .	—	10 0	—	8 0 <sup>4</sup>	7 0 <sup>6</sup>
Surplus for the year, . . . . .	12,000 93	1,099 87 <i>d</i>	428 22 <i>d</i>	1,267,539 99 <i>d</i>	170 17
Surplus, June 30, 1910, . . . . .	18,956 44	114,414 01	168 16	14,196,253 47	51,428 04
Additions during the year, . . . . .	—	—	—	1,626,107 31	—
Deductions during the year, . . . . .	—	276 04	—	279,805 63	—
TOTAL SURPLUS, JUNE 30, 1911, . . . . .	30,957 37	113,038 10	260 06 <i>d</i>	14,275,015 16	51,598 21
VOLUME OF TRAFFIC, ETC.					
Passengers carried, . . . . .	387,477	41,606	15,876	83,193,164	—
average length of journey, . . . . .	8 00 miles.	12 94 miles.	9 00 miles.	18 44 miles.	—
<i>Total passenger mileage, . . . . .</i>	3,099,816	538,530	142,884	1,534,301,064	—
Average receipts per mile for passengers, . . . . .	1 187 cents.	3 557 cents.	3 723 cents.	1 708 cents.	—
Tons of freight hauled, . . . . .	126,557	73,021	—	23,257,041	396,012
average length of haul, . . . . .	13 00 miles.	13 33 miles.	—	93 80 miles.	1 375 miles.
<i>Total freight mileage, . . . . .</i>	1,644,931	973,613	—	2,181,557,124	544,516
Average receipts per ton of freight per mile, . . . . .	4 852 cents.	6 891 cents.	—	1 390 cents.	20 512 cents.
Passenger train miles, . . . . .	186,815 <sup>1</sup>	31,488	17,394	15,986,627	—
Freight train miles, . . . . .	36,307 <sup>2</sup>	6,726	—	7,350,883	14,856

Mixed train miles, . . . . .	—	8,250	—	180,233	—
Special train miles, . . . . .	—	814	—	38,312	—
<i>Total revenue train miles,</i> . . . . .	223,122	47,278	17,394	23,556,055	14,856
Non-revenue service train miles, . . . . .	—	—	—	6,416,718 <sup>5</sup>	—
<b>TOTAL REVENUE AND NON-REVENUE TRAIN MILES,</b> . . . . .	<b>223,122</b>	<b>47,278</b>	<b>17,394</b>	<b>29,972,773</b>	<b>14,856</b>
<b>EQUIPMENT.</b>					
Number of locomotives, . . . . .	2	6	1	1,227	5
of passenger and combination cars, . . . . .	— <sup>3</sup>	5	2	1,721	—
of dining, parlor and sleeping cars, . . . . .	—	—	—	271	—
of baggage, express and postal cars, . . . . .	—	—	—	329	—
of other passenger service cars, . . . . .	—	2	—	207	—
of freight cars, . . . . .	6	116	—	38,441	—
of officers' and pay cars, . . . . .	—	—	—	16	—
of gravel and other cars, . . . . .	1	—	—	1,162	—
<b>MISCELLANEOUS.</b>					
Whole number of stockholders, . . . . .	11	16	—	20,262	3
Total miles of road operated, . . . . .	19.12	25.00	9.12	2,039.99	2.30
Number of employees, . . . . .	32	8.22	9.12	899.70	2.30
		45	20	32,480	52

<sup>1</sup> Electric cars.<sup>2</sup> Steam trains.<sup>3</sup> Passenger service performed with electric cars furnished by the Milford & Uxbridge Street Railway Company.<sup>4</sup> On varying amounts of capital stock and \$1 and \$1.50 per share on varying amounts of "outstanding receipts for installments paid" on capital stock.<sup>5</sup> Includes 5,068,729 revenue switching locomotive miles.<sup>6</sup> Not including dividend on \$13,000 capital stock held in treasury.<sup>d</sup> Deficit.

Tabulated Statements from Returns of Railroad Corporations — Continued.

LEASED RAILROADS.*	16. — BERKSHIRE. <sup>1†</sup>	17. — BOSTON & ALBANY. <sup>2</sup>	18. — BOSTON & LOWELL. <sup>3</sup>	19. — BOSTON & PROVIDENCE. <sup>1</sup>	20. — CHATHAM. <sup>1</sup>
ASSETS.					
Road and equipment,	.	.	.	.	.
Securities,	\$1,068,588 68	\$43,174,783 70	\$14,976,534 64	\$5,673,198 59	\$99,491 13
Other investments,	—	5,550,642 50	362,445 50	—	—
Working assets,	13,185 82	2,535,203 45	1,165,006 08	419,703 36	3,993 59
Accrued income not due,	—	160,027 50	—	304,774 87	—
Deferred debit items,	—	3,177,944 01	557,108 91	—	—
GRAND TOTAL,	1,081,774 50	54,598,601 16	17,061,155 13	6,397,676 82	103,484 72
LIABILITIES.					
Capital stock,	\$1,078,700 00	\$25,000,000 00	\$7,399,400 00	\$4,000,000 00	\$68,200 00
Funded debt,	—	21,985,000 00	6,528,000 00	2,170,000 00	—
Working liabilities,	7 50	84,781 25	438,299 86	—	—
Accrued liabilities not due,	—	160,027 50	51,598 34	147,647 00	—
Deferred credit items,	—	5,560,081 61	102,557 78	—	—
Premiums on capital stock,	—	—	1,091,162 02	—	—
Appropriated surplus,	—	264,843 10	14,009 47	—	—
Profit and loss (balance), June 30, 1911,	3,067 00	1,543,867 70	1,436,127 66	80,029 82	35,284 72
GRAND TOTAL,	1,081,774 50	54,598,601 16	17,061,155 13	6,397,676 82	103,484 72
INCOME, EXPENDITURES, ETC.					
Total income from all sources,	\$15,966 00	\$3,298,242 99	\$841,422 74	\$489,827 85	\$5,290 15
Total expenses,	—	11,371 89	7,000 00	3,027 85	210 53
Taxes, rents, etc.,	—	84,233 60	1,315 74	—	418 24
Interest on funded and other debts,	—	1,015,137 50	252,355 00	86,800 00	106 00
Net corporate income,	15,966 00	2,187,500 00	580,752 00	400,000 00	4,555 38
Dividends declared,	15,966 00 <sup>4</sup>	2,187,500 00	580,752 00	399,600 00 <sup>6</sup>	2,046 00
Percentage of dividends declared,	1.5	8.75	8.0 <sup>5</sup>	10.0	3.0
Surplus for the year,	—	—	—	400 00	2,509 38

\* Leased to and operated by <sup>1</sup> New York, New Haven & Hartford, <sup>2</sup> New YorkCentral & Hudson River, <sup>3</sup> Boston & Maine.

† Consolidated with the New York, New Haven &amp; Hartford October 26, 1910.

<sup>4</sup> Not including 143 shares in treasury.<sup>5</sup> Four per cent on \$7,119,400 and four per cent on \$7,399,400 capital stock.<sup>6</sup> Not including 40 shares in treasury.

## Tabulated Statements from Returns of Railroad Corporations — Continued.

LEASED RAILROADS.*	21. — CHESTER & BECKET.†	22. — CONNECTICUT RIVER.‡	23. — FITCHBURG.¹	24. — HOLYOKE & WESTFIELD.²	25. — HORN POND BRANCH.‡
<b>ASSETS.</b>					
Road and equipment,	\$136,893 98	\$4,411,328 69	\$47,470,688 51	\$460,000 00	\$15,238 46
Securities,	—	1,110,407 50	—	4,200 00	—
Other investments,	—	—	8,262 64	—	—
Working assets,	—	177,247 97	1,411,870 00	2,855 91	—
Accrued income not due,	—	—	285,074 56	—	—
Deferred debit items,	—	7,693 45	2,694,651 85	—	—
Profit and loss (balance), June 30, 1911,	51,910 39	43,655 86	—	—	—
GRAND TOTAL,	188,804 37	5,750,333 47	51,870,547 56	467,055 91	15,238 46
<b>LIABILITIES.</b>					
Capital stock,	\$50,000 00	\$3,233,300 00	\$25,860,000 00 ⁴	\$260,000 00	\$2,000 00
Funded debt,	50,000 00	2,259,000 00	23,067,000 00	200,000 00	—
Working liabilities,	88,804 37	24,665 50	1,150,026 75	—	—
Accrued liabilities not due,	—	13,763 34	285,074 56	—	—
Deferred credit items,	—	217,157 54 ³	327,287 15	—	—
Premiums on capital stock,	—	—	444,637 21	—	—
Appropriated surplus,	—	2,447 09	23,733 08	—	—
Profit and loss (balance), June 30, 1911,	—	—	712,788 81	7,055 91	13,238 46
GRAND TOTAL,	188,804 37	5,750,333 47	51,870,547 56	467,055 91	15,238 46
<b>INCOME, EXPENDITURES, ETC.</b>					
Total income from all sources,	—	\$411,946 96	\$1,910,794 65	\$50,259 37	—
Total expenses,	—	4,321 01	33,799 65	1,199 02	—
Taxes, rents, etc.,	26 61	—	—	—	—
Interest on funded and other debts,	4,192 26	84,065 00	943,995 00	8,000 00	—
Net corporate income,	4,218 87 <sup>d</sup>	323,560 95	933,000 00	41,060 35	—
Dividends declared,	—	323,330 00	933,000 00	36,400 00	—
Percentage of dividends declared,	—	10.0	5.0 ⁵	14.0	—
Surplus for the year,	4,218 87 <sup>d</sup>	230 95	—	4,660 35	—

\* Leased to and operated by <sup>1</sup> Boston & Maine, <sup>2</sup> New York, New Haven & Hartford.

† Operated by Boston &amp; Albany (New York Central &amp; Hudson River, lessee), under an agreement.

‡ Used for transportation of ice; no income reported. Operated by Boston &amp; Maine.

<sup>3</sup> Obligations for "advances received for construction, etc."<sup>4</sup> Common, \$7,000,000; preferred, \$18,860,000.<sup>5</sup> On varying amounts of preferred capital stock.<sup>d</sup> Deficit.

Tabulated Statements from Returns of Railroad Corporations — Continued.

LEASED RAILROADS.*	26. — LOWELL & ANDOVER. <sup>1</sup>	27. — MILFORD, FRANKLIN & PROV- DENCE. <sup>†</sup>	28. — MILFORD & WOONSOCKET. <sup>†</sup>	39. — NASHUA & ACTON. <sup>1</sup>	30. — NASHUA & LOWELL. <sup>1</sup>
<b>ASSETS.</b>					
Road and equipment, . . . . .	\$767,050 24	\$101,308 23	\$173,381 13	\$300,000 00	\$909,803 19
Securities, . . . . .	—	—	—	—	52,207 50
Working assets, . . . . .	5,244 61	—	—	—	2,908 77
Profit and loss (balance), June 30, 1911, . . . . .	—	8,691 77	35,218 87	—	—
GRAND TOTAL, . . . . .	772,294 85	110,000 00	208,600 00	300,000 00	964,919 46
<b>LIABILITIES.</b>					
Capital stock, . . . . .	\$625,000 00	\$100,000 00	\$148,600 00	\$300,000 00	\$800,000 00
Funded debt, . . . . .	—	10,000 00	60,000 00	—	—
Working liabilities, . . . . .	—	—	—	—	184 50
Appropriated surplus, . . . . .	—	—	—	—	318 17
Profit and loss (balance), June 30, 1911, . . . . .	147,294 85	—	—	—	164,416 79 <sup>2</sup>
GRAND TOTAL, . . . . .	772,294 85	110,000 00	208,600 00	300,000 00	964,919 46
<b>INCOME, EXPENDITURES, ETC.</b>					
Total income from all sources, . . . . .	\$52,601 94	\$187 79	\$1,126 67	—	\$75,583 99
Total expenses, . . . . .	360 08	—	—	—	1,272 96
Taxes, rents, etc., . . . . .	14 31	—	—	—	—
Interest on funded and other debts, . . . . .	—	187 79	1,126 67	—	—
Net corporate income, . . . . .	52,227 55	—	—	—	74,311 03
Dividends declared, . . . . .	50,000 00	—	—	—	76,000 00
Percentage of dividends declared, . . . . .	8 0	—	—	—	9.5
Surplus for the year, . . . . .	2,227 55	—	—	—	1,688 97 <sup>d</sup>

\* Leased to and operated by <sup>1</sup> Boston & Maine.

† Owned and operated by the New York, New Haven &amp; Hartford until December 19, 1910, when consolidated with that company.

<sup>2</sup> Crediting \$497.80 and debiting \$161.25.<sup>d</sup> Deficit.



## Tabulated Statements from Returns of Railroad Corporations — Continued.

LEASED RAILROADS.*	31. — NEW HAVEN & NORTHAMPTON. <sup>††</sup>	32. — NEW LONDON NORTHERN. <sup>‡</sup>	33. — NORTH BROOKFIELD. <sup>§</sup>	34. — NORWICH & WORCESTER. <sup>1</sup>	35. — OLD COLONY. <sup>1</sup>
<b>ASSETS.</b>					
Road and equipment, . . . . .	\$7,986,987 28	\$3,180,556 89	\$100,000 00	\$4,913,481 58	\$37,720,071 29
Securities, . . . . .	—	150,000 00	—	—	147 50
Other investments, . . . . .	—	137,493 02	—	3,107 08	3,780,636 42
Working assets, . . . . .	41,097 23	74,558 03	549 00	780,910 61	505,614 76
Deferred debit items, . . . . .	—	24,505 00	—	180 00	2,800,000 00
GRAND TOTAL, . . . . .	8,028,084 51	3,567,112 94	100,549 00	5,697,679 27	44,806,469 97
<b>LIABILITIES.</b>					
Capital stock, . . . . .	\$2,460,000 00	\$1,500,000 00	\$100,000 00	\$3,006,600 00 <sup>5</sup>	\$21,165,125 00 <sup>6</sup>
Funded debt, . . . . .	3,100,000 00	1,500,000 00	—	1,200,000 00	13,598,000 00
Working liabilities, . . . . .	876 42	68,947 15	—	63,649 00	1,180,131 32
Accrued liabilities not due, . . . . .	41,097 23	250 00	—	16,000 00	74,493 33
Deferred credit items, . . . . .	92,400 66 <sup>4</sup>	—	—	299,044 75 <sup>4</sup>	199,528 08
Premiums on capital stock, . . . . .	—	—	—	—	5,928,847 09
Profit and loss (balance), June 30, 1911, . . . . .	2,333,710 20	497,915 79	549 00	1,112,385 52	2,660,345 15
GRAND TOTAL, . . . . .	8,028,084 51	3,567,112 94	100,549 00	5,697,679 27	44,806,469 97
<b>INCOME, EXPENDITURES, ETC.</b>					
Total income from all sources, . . . . .	\$66,447 23	\$217,347 08	\$3,010 06	\$291,549 46	\$2,046,970 22
Taxes, . . . . .	—	10,742 61	11 86	3,203 23	7,906 89
Taxes, rents, etc., . . . . .	—	845 00	524 80	—	40,833 33
Interest on funded and other debts, . . . . .	41,847 23	63,000 00	—	48,000 00	558,750 00
Net corporate income, . . . . .	24,600 00	142,759 47	2,473 40	240,346 23	1,439,480 00
Dividends declared, . . . . .	24,600 00	135,000 00	2,500 00	240,000 00	1,439,480 00
Percentage of dividends declared, . . . . .	1.0	9.0	2.5	8.0	7.0 <sup>7</sup>
Surplus for the year, . . . . .	—	7,759 47	26 60 <sup>d</sup>	346 23	—

\* Leased to and operated by <sup>1</sup> New York, New Haven & Hartford, <sup>2</sup> Central Vermont, <sup>3</sup> Boston & Albany (New York Central & Hudson River, lessee).<sup>†</sup> Consolidated with the New York, New Haven & Hartford October 26, 1910.<sup>‡</sup> On varying amounts of capital stock.<sup>§</sup> Deficit.<sup>5</sup> Common, \$6,600; preferred, \$3,000,000.<sup>6</sup> Including "common stock" liability of \$1,125.<sup>7</sup> On varying amounts of capital stock.<sup>d</sup> Deficit.

Tabulated Statements from Returns of Railroad Corporations — Continued.

LEASED RAILROADS.*	35. — PITTSFIELD & NORTH ADAMS. <sup>1</sup>	37. — PLYMOUTH & MIDDLEBOROUGH. <sup>2</sup>	38. — PROVIDENCE, WEBSTER & SPRINGFIELD. <sup>†</sup>	39. — PROVIDENCE & WORCESTER. <sup>2</sup>	40. — RHODE ISLAND & MASSACHUSETTS. <sup>‡</sup>
<b>ASSETS.</b>					
Road and equipment, . . . . .	\$450,000 00	\$305,000 00	\$247,361 12	\$5,105,137 40	\$112,321 13
Working assets, . . . . .	—	—	5,487 64	47,984 55	—
Deferred debit items, . . . . .	—	—	62 90	80,747 97	—
GRAND TOTAL, . . . . .	450,000 00	305,000 00	252,911 66	5,233,869 92	112,321 13
<b>LIABILITIES.</b>					
Capital stock, . . . . .	\$450,000 00	\$80,000 00	\$160,000 00	\$3,500,000 00	\$100,000 00
Funded debt, . . . . .	—	225,000 00	—	1,500,000 00	—
Working liabilities, . . . . .	—	—	32,000 00	—	—
Profit and loss (balance), June 30, 1911, . . . . .	—	—	60,911 66	233,869 92	12,321 13
GRAND TOTAL, . . . . .	450,000 00	305,000 00	252,911 66	5,233,869 92	112,321 13
<b>INCOME, EXPENDITURES, ETC.</b>					
Total income from all sources, . . . . .	\$22,500 00	\$11,350 00	\$9,538 06	\$417,578 37	—
Total expenses, . . . . .	—	100 00	2,610 75	6,420 79	—
Interest on funded and other debts, . . . . .	—	11,250 00	—	60,000 00	—
Net corporate income, . . . . .	22,500 00	—	6,927 31	351,157 58	—
Dividends declared, . . . . .	22,500 00	—	—	350,000 00	—
Percentage of dividends declared, . . . . .	5.0	—	—	10.0	—
Surplus for the year, . . . . .	—	—	6,927 31	1,157 58	—

\* Leased to and operated by <sup>1</sup> Boston & Albany (New York Central & Hudson River, lessee), <sup>2</sup> New York, New Haven & Hartford.

† Operated by Boston &amp; Albany (New York Central &amp; Hudson River, lessee), under an agreement.

‡ Owned and operated by the New York, New Haven &amp; Hartford until October 26, 1910, when consolidated with that company.

*Tabulated Statements from Returns of Railroad Corporations — Concluded.*

LEASED RAILROADS.*		41.—SPRING BROOK. <sup>1</sup>	42.—VERMONT & MASSACHUSETTS. <sup>1</sup>	43.—WARE RIVER. <sup>2</sup>	44.—WORCESTER, NASHUA & ROCHESTER. <sup>†</sup>
ASSETS.					
Road and equipment,	.	\$298,093 57	\$6,761,822 41	\$1,115,163 82	—
Working assets,	.	1,641 21	9,996 50	—	—
Accrued income not due,	.	—	4,503 33	—	—
Profit and loss (balance), June 30, 1911,	.	265 22	—	—	—
GRAND TOTAL,	.	300,000 00	6,776,322 24	1,115,163 82	—
LIABILITIES.					
Capital stock,	.	\$300,000 00	\$3,193,000 00	\$750,000 00	—
Funded debt,	.	—	772,000 00	—	—
Working liabilities,	.	—	9,996 50	365,163 82	—
Accrued liabilities not due,	.	—	4,503 33	—	—
Appropriated surplus,	.	—	252,721 02	—	—
Profit and loss (balance), June 30, 1911,	.	—	2,544,101 39	—	—
GRAND TOTAL,	.	300,000 00	6,776,322 24	1,115,163 82	—
INCOME, EXPENDITURES, ETC.					
Total income from all sources,	.	\$21,500 00	\$248,760 47	\$52,500 00	\$250,383 37
Total expenses,	.	370 70	30,160 47	—	2,846 75
Interest on funded and other debts,	.	—	27,020 00	—	71,040 00
Net corporate income,	.	21,129 30	191,580 00	52,500 00	176,496 62
Dividends declared,	.	21,000 00	191,580 00	52,500 00	176,203 00
Percentage of dividends declared,	.	7.0	6.0	7.0	5.75 <sup>3</sup>
Surplus for the year,	.	129 30	—	—	293 62

\* Leased to and operated by <sup>1</sup> Boston & Maine, <sup>2</sup> Boston & Albany (New York Central & Hudson River, lessee).

† Purchased by the Boston & Maine.

<sup>3</sup> On 30,644 shares stock.



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## COMPARATIVE AND SUMMARY STATEMENTS

COMPILED FROM

# Returns of Railroad Corporations.

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In any examination for purposes of comparison between the comparative and summary statements compiled from returns of railroad corporations here following and prior statements, it must be distinctly understood that by reason of the adoption by the Board, under authority of law, of the form of return prescribed by the Interstate Commerce Commission, the return now adopted differs substantially in principle from the return formerly in use under authority of the Board.

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## COMPARISON OF RETURNS FOR THE YEARS 1910 AND 1911.

MILEAGE, ASSETS, ETC.	1910.	1911.	Increase.	Decrease.
<b>Description of Road Owned.</b>	Miles.	Miles.	Miles.	Miles.
Length of road and branches,	4,002.64 <sup>1</sup>	4,002.34 <sup>1</sup>	-	.30
in Massachusetts,	2,110.16	2,111.22	1.06	-
Length of second track,*	1,750.38	1,781.36	30.98	-
in Massachusetts,	1,019.98	1,041.77	21.79	-
Length of side track,	2,736.64 <sup>2</sup>	2,783.44 <sup>2</sup>	46.80	-
in Massachusetts,	1,629.39	1,663.32	33.93	-
Total length as single track,	8,489.66 <sup>3</sup>	8,567.14 <sup>3</sup>	77.48	-
in Massachusetts,	4,759.53	4,816.31	56.78	-
<b>Assets.</b>				
Road and equipment, . . . . .	\$434,559,352 97	\$454,888,659 78	\$20,329,306 81	-
Securities, . . . . .	161,898,121 32	154,249,278 78	-	\$7,648,842 54
Other investments, . . . . .	71,487,734 24	80,624,751 78	9,137,017 54	-
Working assets, . . . . .	83,185,328 73	106,013,154 29	22,827,825 56	-
Accrued income not due, . . . . .	1,274,658 15	1,385,947 82	111,289 67	-
Deferred debit items, . . . . .	21,036,698 42	21,605,830 21	569,131 79	-
Profit and loss (balance), . . . . .	438,679 21	96,091 53	-	342,587 68
<i>Grand Total,</i> . . . . .	\$773,880,573 04	\$818,863,714 19	\$44,983,141 15	-
<b>Liabilities.</b>				
Capital stock, common, . . . . .	\$260,490,540 70	\$299,435,365 70	\$38,944,825 00	-
preferred, . . . . .	24,609,800 00	25,009,800 00	400,000 00	-
<i>Total capital stock,</i> . . . . .	285,100,340 70	324,445,165 70	39,344,825 00	-
Funded debt, . . . . .	356,983,950 00	334,371,200 00	-	\$22,612,750 00
Obligations for advances for construction, . . . . .	719,465 43	991,006 27	271,540 84	-
Working liabilities, . . . . .	30,942,684 55	54,689,338 87	23,746,654 32	-
Accrued liabilities not due, . . . . .	14,879,683 31	14,487,664 51	-	391,968 80
Deferred credit items, . . . . .	15,857,134 71	9,621,249 66	-	6,235,885 05
Premiums on capital stock, . . . . .	32,442,220 10	46,311,851 34	13,869,631 24	-
Premiums on bonds, . . . . .	1,103,883 01	629,373 01	-	474,510 00
Sinking and reserve funds, . . . . .	3,753,803 07	4,698,544 98	944,741 91	-
Additions to property through income, . . . . .	238,571 04	520,950 41	282,409 37	-
Profit and loss (balance), . . . . .	31,858,887 12	28,097,339 44	-	3,761,547 68
<i>Grand Total,</i> . . . . .	\$773,880,573 04	\$818,863,714 19	\$44,983,141 15	-
<b>Income.</b>				
Revenue from freight, . . . . .	\$64,070,156 70	\$65,038,749 60	\$968,592 90	-
passengers, . . . . .	45,763,183 85	48,430,953 15	2,667,769 30	-
excess baggage, . . . . .	349,749 15	352,388 57	2,639 42	-
mail, . . . . .	1,490,186 88	1,491,020 49	833 61	-
express, . . . . .	4,724,537 67	4,587,847 04	-	\$136,690 63
milk (on passenger trains), . . . . .	394,305 14	430,971 67	36,666 53	-
other passenger trains, . . . . .	273,908 51	308,925 52	35,017 01	-
Total passenger service train revenue, . . . . .	52,995,871 20	55,602,106 44	2,606,235 24	-
Revenue from switching and miscellaneous, . . . . .	890,235 73	952,902 54	62,666 81	-
<i>Total revenue from transportation,</i> . . . . .	117,956,263 63	121,593,758 58	3,637,494 95	-
Revenue from operations other than transportation, . . . . .	1,857,695 53	1,962,372 80	104,677 27	-
joint facilities, . . . . .	327,033 14	403,358 18	76,325 04	-
<i>Total operating revenue,</i> . . . . .	120,140,992 30	123,959,489 56	3,818,497 26	-
Net revenue from outside operations, . . . . .	1,445,143 19	1,536,425 84	91,282 65	-
Rents from lease of road, . . . . .	10,690,221 90	10,605,492 31	-	84,729 59
Other income, . . . . .	10,090,770 97	10,435,812 57	345,041 60	-
<i>Gross Corporate Income,†</i> . . . . .	\$142,367,128 36	\$146,537,220 28	\$4,170,091 92	-

\* Including third and fourth main track.

† Operating expenses and taxes not deducted from income but are included in the expenditures.

<sup>1</sup> Includes 18.10 miles of electric street railway owned by the Boston & Maine.<sup>2</sup> Includes 1.14 miles of electric street railway owned by the Boston & Maine.<sup>3</sup> Includes 19.24 miles of electric street railway owned by the Boston & Maine.

## COMPARISON OF RETURNS, ETC. — Concluded.

EXPENDITURES, ETC.	1910.	1911.	Increase.	Decrease.
<b>Expenditures.</b>				
Operating expenses, . . . . .	\$82,067,516 15	\$89,525,902 46	\$7,458,386 31	—
Taxes, . . . . .	6,871,469 14	6,663,380 71	—	\$208,088 43
Rents for lease of road, . . . . .	13,792,829 47	13,126,983 90	—	665,845 57
Hire of equipment, . . . . .	1,287,906 38	1,523,547 25	235,640 87	—
Joint facilities and other rents, . . . . .	1,913,030 94	2,133,101 30	220,070 36	—
Interest on funded and other debts, . . . . .	15,821,457 12	15,934,668 66	113,211 54	—
Other deductions from income, . . . . .	189,775 75	239,363 62	49,587 87	—
<i>Total charges on income, . . . . .</i>	<i>39,876,468 80</i>	<i>39,621,045 44</i>	<i>—</i>	<i>255,423 36</i>
Dividends declared, . . . . .	18,996,657 00	21,780,406 45	2,783,749 45	—
Appropriations for additions, betterments and reserves, . . . . .	260,749 89	54,627 53	—	206,122 36
<i>Gross Expenditures, . . . . .</i>	<i>\$141,201,391 84</i>	<i>\$150,981,981 88</i>	<i>\$9,780,590 04</i>	<i>—</i>
<b>Condensed Exhibit for the Year.</b>				
Total operating revenue, . . . . .	\$120,140,992 30	\$123,959,489 56	\$3,818,497 26	—
Operating expenses, . . . . .	82,067,516 15	89,525,902 46	7,458,386 31	—
Net operating revenue, . . . . .	38,073,476 15	34,433,587 10	—	\$3,639,889 05
Net revenue from outside operations, . . . . .	1,445,143 19	1,536,425 84	91,282 65	—
Rents from lease of road, . . . . .	10,690,221 90	10,605,492 31	—	84,729 59
Other income, . . . . .	10,090,770 97	10,435,812 57	345,041 60	—
Total income above operating expenses, . . . . .	60,299,612 21	57,011,317 82	—	3,288,294 39
Taxes, rents, interest and other charges, . . . . .	39,876,468 80	39,621,045 44	—	255,423 36
<i>Net corporate income, . . . . .</i>	<i>20,423,143 41</i>	<i>17,390,272 38</i>	<i>—</i>	<i>3,032,871 03</i>
Amount of dividends declared, . . . . .	18,996,657 00	21,780,406 45	2,783,749 45	—
Appropriations for additions, betterments and reserves, . . . . .	260,749 89	54,627 53	—	206,122 36
<i>Surplus for the year, . . . . .</i>	<i>1,165,736 52</i>	<i>4,444,761 60d</i>	<i>—</i>	<i>5,610,498 12</i>
Percentage of dividends earned, . . . . .	7.16	5.34	—	1.80
of dividends declared, . . . . .	6.70	6.71	0.01	—
<b>Volume of Traffic.</b>				
Miles run by freight trains, . . . . .	19,888,151	20,372,908	484,757	—
by passenger trains, . . . . .	33,304,522	34,257,020	952,498	—
by mixed trains, . . . . .	402,990	402,765	—	225
by special trains, . . . . .	155,554	164,872	9,318	—
<i>Total revenue train mileage, . . . . .</i>	<i>53,751,217</i>	<i>55,197,565</i>	<i>1,446,348</i>	<i>—</i>
Miles run by non-revenue service trains, . . . . .	15,808,123	16,243,465	435,342	—
<i>Total train mileage, . . . . .</i>	<i>69,559,340</i>	<i>71,441,030</i>	<i>1,881,690</i>	<i>—</i>
Total passengers carried, . . . . .	160,769,201	162,940,242	2,171,041	—
passenger mileage, . . . . .	2,771,121,457	2,808,985,698	37,864,241	—
Average receipts per passenger per mile (cents), . . . . .	1.65	1.72	0.07	—
Total tons of freight hauled, . . . . .	55,786,434	56,557,644	771,210	—
freight mileage, . . . . .	5,433,908,081	5,534,064,740	100,156,659	—
Average receipts per ton of freight per mile (cents), . . . . .	1.18	1.17	—	0.01
<b>Equipment, etc.</b>				
Locomotives, . . . . .	2,749	2,879	130	—
Passenger cars, . . . . .	4,126	4,249	123	—
Baggage, express and postal cars, . . . . .	770	763	—	7
Freight cars, . . . . .	63,382	67,084	3,702	—
All other cars, . . . . .	3,101	3,218	117	—
Total amount of capital stock held in Massachusetts, . . . . .	\$156,382,900 00	\$180,534,900 00	\$24,152,000 00	—
Total number of stockholders, . . . . .	53,882	56,353	2,471	—
in Massachusetts, . . . . .	38,640	39,987	1,347	—
Number of employees, . . . . .	69,798	70,719	921	—
Total miles of road operated, . . . . .	4,917.84 <sup>1</sup>	4,917.65 <sup>1</sup>	—	.19
in Massachusetts, . . . . .	2,133.62	2,134.68	1.06	—
Total miles of track operated, . . . . .	9,976.35 <sup>2</sup>	10,080.05 <sup>2</sup>	103.70	—
in Massachusetts, . . . . .	4,801.40	4,858.18	56.78	—

<sup>1</sup> Includes 47.53 miles of electric street railway operated by the Boston & Maine.<sup>2</sup> Includes 50.69 miles of electric street railway operated by the Boston & Maine.

d Deficit.

## SUMMARY OF RETURNS FOR THE YEARS 1909 TO 1911 INCLUSIVE.

MILEAGE, ASSETS, LIABILITIES, ETC.	1909.	1910.	1911.
<b>Railroad Mileage Owned.</b>			
Miles of main and branch line in Massachusetts, . . . . .	2,110.43	2,110.16	2,111.22
of second track,* . . . . .	1,018.48	1,019.98	1,041.77
of side track, . . . . .	1,576.90	1,629.39	1,663.32
Total track in Massachusetts, . . . . .	4,705.81	4,759.53	4,816.31
<b>Railroad Mileage Operated.</b>			
Miles of main and branch line, . . . . .	4,918.51	4,917.84	4,917.65
of second track,† . . . . .	1,899.95	1,909.48	1,940.00
of side track, . . . . .	3,058.34	3,149.03	3,222.40
Total track operated, . . . . .	9,876.80	9,976.35	10,080.05
<b>Assets.</b>			
Road and equipment, . . . . .	\$458,587.682 13	\$434,559,352 97	\$454,888,659 78
Securities, . . . . .	86,437.366 97	161,898,121 32	154,249,278 78
Other investments, . . . . .	58,067,342 53	71,487,734 24	80,624,751 78
Working assets, . . . . .	86,737,311 85	83,185,328 73	106,013,154 29
Accrued income not due, . . . . .	1,669,371 15	1,274,658 15	1,385,947 82
Deferred debit items, . . . . .	22,479,878 87	21,036,698 42	21,605,830 21
Grand Total, . . . . .	713,978,953 50	773,441,893 83	818,767,622 66
<b>Liabilities.</b>			
Capital stock, . . . . .	\$260,778,915 70	\$285,100,340 70	\$324,445,165 70
Funded debt, . . . . .	360,210,375 00	356,983,950 00	334,371,200 00
Obligations for advances for construction, . . . . .	154,014 42	719,465 43	991,006 27
Working liabilities, . . . . .	24,072,804 49	30,942,684 55	54,689,338 87
Accrued liabilities not due, . . . . .	16,122,329 65	14,879,633 31	14,487,664 51
Deferred credit items, . . . . .	9,764,884 45	15,857,134 71	9,621,249 66
Premiums on capital stock, . . . . .	10,115,589 00	32,442,220 10	46,311,851 34
Premiums on bonds, . . . . .	1,103,883 01	1,103,883 01	629,373 01
Sinking and reserve funds, . . . . .	2,953,641 20	3,753,803 07	4,698,544 98
Additions to property through income, . . . . .	24,558 55	238,571 04	520,980 41
Profit and loss (balance), . . . . .	28,677,958 03	31,420,207 91	28,001,247 91
Grand Total, . . . . .	713,978,953 50	773,441,893 83	818,767,622 66
<b>Condensed Exhibit for the Year.</b>			
Total operating revenue, . . . . .	\$108,105,771 52	\$120,140,992 30	\$123,959,489 56
Operating expenses, . . . . .	75,048,921 33	82,067,516 15	89,525,902 46
Net operating revenue, . . . . .	33,056,850 19	33,078,476 15	34,433,587 10
Net revenue from outside operations, . . . . .	1,358,148 30	1,445,143 19	1,536,425 84
Rent from lease of roads, . . . . .	10,279,513 54	10,690,221 90	10,605,492 31
Other income, . . . . .	9,190,050 13	10,090,770 97	10,435,812 57
Total income above operating expenses, . . . . .	53,884,562 16	60,299,612 21	57,011,317 82
Taxes, rents, interest and other charges, . . . . .	37,771,694 37	39,876,468 80	39,621,045 44
Net corporate income, . . . . .	16,112,867 79	20,423,143 41	17,390,272 38
Amount of dividends declared, . . . . .	16,964,680 63	18,996,657 00	21,780,406 45
Appropriations for additions, betterments and reserves, . . . . .	47,099 38	260,749 89	54,627 53
Surplus for the year, . . . . .	898,912 22d	1,165,736 52	4,444,761 60d
Percentage of dividends earned, . . . . .	6.72	7.16	5.36
of dividends declared, . . . . .	7.10	6.70	6.71
Stock held in Massachusetts, . . . . .	\$137,571,200 00	\$156,382,900 00	\$180,534,900 00
Total number of stockholders, . . . . .	54,436	53,882	56,353
in Massachusetts, . . . . .	38,454	38,640	39,987
Number of employees June 30, . . . . .	64,725	69,798	70,719

\* Includes third and fourth main track.

d Deficit.

† Includes third, fourth, fifth and sixth main track.



## SUMMARY OF RETURNS, ETC. — Concluded.

VOLUME OF TRAFFIC, ETC.	1909.	1910.	1911.
<b>Volume of Traffic.</b>			
Miles run by freight trains, . . . . .	18,750,060	19,888,151	20,372,908
by passenger trains, . . . . .	31,992,621	33,304,522	34,257,020
by mixed trains, . . . . .	336,113	402,990	402,765
by special trains, . . . . .	110,792	155,554	164,872
<i>Total revenue train mileage,</i> . . . . .	51,189,586	53,751,217	55,197,565
Miles run by non-revenue service trains, . . . . .	14,740,906	15,808,123	16,243,465
<i>Total train mileage,</i> . . . . .	65,930,492	69,559,340	71,441,030
Passengers carried, . . . . .	147,051,164	160,769,201	162,940,242
Average length of journey (miles), . . . . .	17.39	17.23	17.24
<i>Total passenger mileage,</i> . . . . .	2,556,994,990	2,771,121,457	2,808,985,698
Average fare per mile (cents), . . . . .	1.64	1.65	1.72
Passengers to and from Boston, . . . . .	66,233,488	70,465,056	71,386,676
Tons of freight hauled, . . . . .	49,259,397	55,786,434	56,557,644
Average length of haul (miles), . . . . .	97.51	97.41	97.85
<i>Total freight mileage,</i> . . . . .	4,803,497,797	5,433,908,081	5,534,064,740
Average rate per ton mile (cents), . . . . .	1.19	1.19	1.17
<b>Equipment.</b>			
Number of locomotives, . . . . .	2,728	2,749	2,879
of passenger cars, . . . . .	4,031	4,126	4,249
of baggage, express and postal cars, . . . . .	749	770	763
of freight cars, . . . . .	62,011	63,382	67,084
of all other cars, . . . . .	2,673	3,101	3,218



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TABULATED STATEMENTS

COMPILED FROM THE

# Returns of Street Railway Companies

FOR THE

YEAR ENDING JUNE 30, 1911.

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## TABULATED STATEMENTS FROM RETURNS OF STREET RAILWAY COMPANIES.

		ASSETS JUNE 30, 1911.						
		1.—Cost of Railway.	2.—Cost of Equipment.	3.—Cost of Land, Buildings, etc.	4.—Cost of Other Permanent Investments.	5.—Cash and Current Assets.	6.— Miscel- laneous Assets.	7.—Gross Assets.
RAILWAY COMPANIES.								
1	Amesbury & Hampton,	\$157,424 98	\$29,580 36	\$53,155 91	—	—	\$8,226 32	\$248,387 57
2	Athol & Orange,	70,590 49	40,651 45	20,499 56	\$19,125 50	\$8,960 49	—	159,827 49
3	Berkshire,	2,905,598 26	691,479 10	915,417 01	545,193 42	117,172 90	94,958 06	5,269,818 75
4	Blue Hill,	409,721 29	136,659 31	113,351 33	—	14,840 80	10,743 26	685,315 99
5	Boston & Chelsea,	121,000 00	—	—	—	73 50	—	121,073 50
6	Boston Elevated,	26,796,944 43	2,171,625 31	8,633,682 40	110,310 03	4,410,158 42	4,655,387 39	46,778,107 98
7	Boston & Northern,	14,253,614 29	5,886,655 09	4,994,740 33	168,553 93	860,786 02	1,895,992 14	28,060,341 80
8	Boston & Revere Electric,	73,815 23	9,919 79	25,136 00	—	—	3,700 00	112,571 02
9	Boston & Worcester,	3,298,646 97	709,212 71	894,757 52	—	98,322 34	125,205 32	5,126,144 86
10	Bristol & Norfolk,	141,046 49	7,576 37	6,617 99	2,762 58	2,506 21	—	160,509 64
11	Brockton & Plymouth,	390,547 88	102,578 06	228,247 66	28,241 15	49,723 12	9,273 39	808,611 26
12	Citizens' Electric,	342,820 47	101,181 17	124,122 63	—	5,085 91	3,186 11	576,096 29
13	Concord, Maynard & Hudson,	235,766 31	94,474 44	109,095 83	—	19,664 27	10,939 22	469,940 07
14	Connecticut Valley,	907,717 36	188,131 70	167,692 99	6,452 48	23,490 22	45,280 43	1,338,765 18
15	Conway Electric,	74,751 88	13,746 78	140,799 53	—	2,988 08	5,724 03	238,010 30
16	Dartmouth & Westport,* 1	295,753 02	118,878 98	56,042 89	25,873 91	295,798 94	1,853 02	794,200 76
17	Dedham & Franklin,	117,352 95	20,994 31	36,246 74	—	867 04	2,087 09	177,548 13
18	East Middlesex,	344,518 03	102,105 79	58,662 11	—	3,458 03	222 00	508,965 96

19	East Taunton, . . . . .	147,832 07	30,214 57	6,251 02	200 00	7,443 68	-	191,941 34
20	Fitchburg & Leominster, . . . . .	867,505 96	231,264 51	302,344 02	114,358 82	26,895 01	45,268 87	1,557,637 19
21	Gardner, Westminster & Fitchburg, . . . . .	230,310 15	63,581 25	74,080 02	23,062 94	3,738 71	7,433 44	402,206 51
22	Haverhill & Amesbury, . . . . .	522,662 90	190,840 00	86,619 97	91,991 85	-	189,291 19	1,081,405 91
23	Haverhill & Plaistow, . . . . .	67,756 46	-	200 00	-	28,994 26	-	96,950 72
24	Haverhill & Southern New Hampshire, . . . . .	171,160 91	56,580 66	4,724 52	-	-	-	232,466 09
25	Holyoke, . . . . .	1,081,715 76	447,915 02	422,629 40	59,403 55	15,165 82	1,610 23	2,028,439 78
26	Interstate Consolidated, . . . . .	474,855 74	-	64,173 08	-	39,288 52	5,071 98	583,389 32
27	Lawrence & Methuen, . . . . .	293,474 51	81,288 64	25,170 20	-	-	-	399,933 35
28	Lexington & Boston, . . . . .	668,968 10	313,668 89	235,603 44	-	35,497 57	5,417 01	1,259,155 01
29	Linwood, . . . . .	8,826 64	17,896 86	-	-	201 19	269 17	27,193 86
30	Lowell, Acton & Maynard, . . . . .	80,556 42	-	6,215 65	-	538 93	-	87,311 00
31	Lowell & Fitchburg, . . . . .	518,051 06	51,761 34	53,714 38	-	10,715 60	1,510 00	635,752 38
32	Lowell & Pelham, . . . . .	55,174 62	41,873 55	200 00	-	-	-	97,248 17
33	Marlborough & Westborough,* 2, . . . . .	216,303 15	63,543 69	84,689 62	15,925 16	14,080 69	4,636 63	399,187 94
34	Martha's Vineyard, . . . . .	5,842 77	-	2,500 00	-	77 23	-	8,420 00
35	Medfield & Medway, . . . . .	215,159 17	21,108 03	1,352 39	-	1,026 24	456 27	239,102 10
36	Middlesex & Boston, . . . . .	2,131,443 65	855,472 29	667,486 20	-	43,510 43	59,574 07	3,757,486 64
37	Milford, Attleborough & Woonsocket, . . . . .	395,425 81	103,911 63	89,309 70	31,770 62	21,130 46	28,349 86	609,898 08
38	Milford & Uxbridge, . . . . .	605,786 93	218,404 65	230,815 69	28,479 74	15,255 29	10,747 61	1,109,489 91
39	Mount Tom, . . . . .	58,216 46	4,900 00	35,883 54	-	2,326 94	-	101,326 94
40	Nahant & Lynn, . . . . .	161,616 29	54,033 83	27,775 33	-	7,809 08	-	251,234 53

<sup>1</sup> Consolidated with the Union November 1, 1910.<sup>2</sup> Consolidated with the Worcester Consolidated May 31, 1911.

## Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		ASSETS JUNE 30, 1911 — Concluded.						
		1. — Cost of Railway.	2. — Cost of Equipment.	3. — Cost of Land, Buildings, etc.	4. — Cost of Other Permanent Investments.	5. — Cash and Current Assets.	6. — Miscel- laneous Assets.	7. — Gross Assets.
41	New Bedford & Onset,	{ \$150,000 00 <sup>1</sup>	} \$111,074 70	\$203,720 24	\$52,720 69	\$19,176 12	\$2,903 64	{ \$150,000 00 <sup>1</sup> 963,101 96
42	Newtonville & Watertown,	573,506 57		—	—	—	4,944 86	
43	Norfolk & Bristol,	283,087 42	79,453 84	94,795 03	—	25,138 53	3,028 70	485,503 52
44	Northampton,	411,010 63	181,711 28	159,237 09	2,010 76	9,809 24	11,484 39	775,263 39
45	North End,	100,480 28	51,355 04	13,674 76	—	855 97	—	106,366 05
46	Norton & Taunton,	501,165 88	81,849 72	82,404 30	—	9,942 60	13,999 06	689,361 56
47	Norwood, Canton & Sharon,	130,990 87	23,930 92	8,453 95	—	1,975 37	496 16	165,847 27
48	Oak Bluffs,	45,740 74	12,011 91	4,033 37	—	1,989 34	2,121 63	65,896 99
49	Old Colony,	10,039,399 01	3,066,451 29	3,726,511 84	286,509 73	346,242 19	936,058 98	18,401,173 04
50	Plymouth & Sandwich,	66,309 96	9,227 17	4,974 64	—	2,345 36	—	82,857 13
51	Point Shirley,	13,300 00	11,000 00	2,350 00	—	215 00	—	26,865 00
52	Providence & Fall River,	253,603 11	97,340 70	31,831 36	—	3,586 56	2,224 03	388,585 76
53	Shelburne Falls & Colrain,	106,688 00	19,799 98	28,372 55	1,480 06	2,612 11	3,395 58	162,348 28
54	Somerville,	153,000 00	—	—	—	—	—	153,000 00
55	Springfield,	4,217,932 62	1,218,810 89	1,515,882 67	50,253 13	266,141 65	171,612 86	7,440,633 82
56	Springfield & Eastern,*	1,143,943 64	144,404 41	96,626 94	28,614 91	28,912 43	—	1,442,502 33
57	Taunton & Pawtucket,	200,181 90	80,721 78	54,325 39	—	1,115 85	1,065 27	337,410 19
58	Templeton,	391,768 98	—	—	—	8,212 25	—	399,981 23

59	Union, . . . . .	1,207,998 42	645,148 89	951,028 28	15,773 69	177,946 53	97,502 93	3,095,398 74
60	Ware & Brookfield, . . . . .	148,878 99	32,469 04	51,750 00	-	841 02	4,706 65	238,645 70
61	Warren, Brookfield & Spencer, . . . . .	258,938 58	41,596 55	67,070 76	-	1,961 18	18,601 06	388,168 13
62	Webster & Dudley, . . . . .	122,843 90	12,968 91	8,072 86	-	-	-	143,885 67
63	West End, . . . . .	13,046,481 79	10,537,327 75	13,008,291 27	299,362 46	1,236,418 52	-	38,727,881 79
64	Winnisimmet, . . . . .	50,000 00	-	-	-	1,574 85	50 00	51,624 85
65	Worcester & Blackstone Valley,* <sup>3</sup> . . . . .	596,196 22	120,928 72	409,166 91	7,763 24	16,502 55	14,217 67	1,164,775 31
66	Worcester Consolidated, . . . . .	6,173,939 30	2,440,738 60	2,588,586 58	76,178 35	229,689 01	284,611 78	11,793,743 62
67	Worcester & Holden,* <sup>3</sup> . . . . .	245,909 22	48,166 81	61,249 69	-	21,014 97	27 89	376,368 58
68	Worcester & Providence, <sup>4</sup> . . . . .	29,994 23	-	-	-	5 77	-	30,000 00
69	Worcester & Shrewsbury R.R., . . . . .	70,803 58	52,710 86	-	-	4 89	-	123,519 33
70	Worcester & Shrewsbury St Ry., . . . . .	11,700 00	8,300 00	-	-	22 05	-	20,022 05
71	Worcester & Southbridge,* <sup>3</sup> . . . . .	1,043,529 26	236,810 64	389,953 00	8,437 06	36,071 93	12,461 53	1,727,263 42
72	Worcester & Webster, . . . . .	261,526 54	89,092 04	134,046 77	-	1,450 00	36,914 79	523,030 14
	Totals, <sup>5</sup> . . . . .	\$98,533,614 46	\$31,906,379 32	\$42,198,687 80	\$2,014,195 48	\$8,231,929 13	\$8,816,701 97	\$191,791,508 16

<sup>1</sup> Property covered by a mortgage given by the Middleboro', Wareham & Buzzard's Bay, but not assumed by the New Bedford & Onset in the consolidation.

<sup>2</sup> Consolidated with the Springfield December 1, 1910.

<sup>3</sup> Consolidated with the Worcester Consolidated May 31, 1911.

<sup>4</sup> Obtained a certificate of incorporation but has not commenced the construction of its railway.

<sup>5</sup> Not including the companies marked \*, these companies having been consolidated during the year.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		LIABILITIES JUNE 30, 1911.						
		8. — Capital Stock.	9. — Funded Debt.	10. — Real Estate Mortgages.	11. — Current Liabilities.	12. — Accrued Liabilities.	13. — Sinking and Other Reserve Funds.	14. — Gross Liabilities.
1	Amesbury & Hampton,	\$100,000 00	\$100,000 00	—	\$101,277 85	\$1,250 00	\$18,926 32	\$321,454 17
2	Athol & Orange,	74,500 00	60,000 00	—	15,959 99	3,999 99	—	154,459 98
3	Berkshire,	1,948,100 00	1,700,000 00	—	1,525,494 75	48,505 96	18,529 30	5,240,630 01
4	Blue Hill,	300,000 00	250,000 00	—	190,364 09	5,517 40	1,826 94	747,708 43
5	Boston & Chelsea,	121,000 00	—	—	73 50	—	—	121,073 50
6	Boston Elevated,	19,950,000 00	13,300,000 00	—	3,959,010 68	2,874,509 46	3,075,655 61	43,159,175 75
7	Boston & Northern,	12,355,100 00	12,415,500 00	—	2,554,824 95	239,776 50	209,349 35	27,774,550 80
8	Boston & Revere Electric,	50,000 00	50,000 00	—	—	—	2,500 00	102,500 00
9	Boston & Worcester,	2,322,000 00	2,320,000 00	—	330,320 86	77,347 75	—	5,049,668 61
10	Bristol & Norfolk,	100,000 00	70,000 00	—	28,496 99	—	—	198,496 99
11	Brockton & Plymouth,	405,000 00	295,000 00	—	35,579 70	6,694 15	39,769 60	782,043 45
12	Citizens' Electric,	240,000 00	230,000 00	—	49,031 13	6,030 82	5,000 00	530,061 95
13	Concord, Maynard & Hudson,	200,000 00	200,000 00	—	29,311 92	5,000 00	—	434,311 92
14	Connecticut Valley,	620,000 00	580,000 00	\$5,300 00	104,568 43	17,918 77	—	1,327,787 20
15	Conway Electric,	100,000 00	100,000 00	—	49,282 71	—	—	249,282 71
16	Dartmouth & Westport,*	500,000 00	—	—	716 34	—	27,992 67	528,639 01
17	Dedham & Franklin,	75,000 00	100,000 00	—	20,825 03	—	—	195,825 03
18	East Middlesex, ]	297,700 00	220,000 00	—	20 00	—	—	517,720 00



19	East Taunton, . . . . .	110,000 00	45,000 00	-	2,063 48	324 92	-	157,388 40
20	Fitchburg & Leoninster, . . . . .	450,000 00	400,000 00	-	706,583 63	11,284 09	-	1,567,867 72
21	Gardner, Westminster & Fitchburg, . . . . .	185,000 00	185,000 00	-	6,706 50	4,364 20	-	381,070 70
22	Haverhill & Amesbury, . . . . .	150,000 00	490,000 00	-	515,861 54	-	51,000 00	1,206,861 54
23	Haverhill & Plaistow, . . . . .	30,000 00	30,000 00	-	3,000 00	-	9,000 00	72,000 00
24	Haverhill & Southern New Hampshire, . . . . .	80,000 00	80,000 00	-	86,986 07	-	23,400 00	270,386 07
25	Holyoke, . . . . .	1,073,600 00	600,000 00	-	177,326 94	8,000 00	50,584 46	1,909,511 40
26	Interstate Consolidated, . . . . .	275,000 00	-	-	271,841 16	7,136 66	23,749 01	577,726 83
27	Lawrence & Methuen, . . . . .	150,000 00	125,000 00	-	88,858 73	-	40,000 00	403,858 73
28	Lexington & Boston, . . . . .	525,000 00	500,000 00	-	272,943 64	6,127 75	-	1,304,071 39
29	Linwood, . . . . .	12,000 00	-	-	8,640 07	-	-	20,640 07
30	Lowell, Acton & Maynard, . . . . .	35,000 00	-	-	53,221 78	-	-	88,221 78
31	Lowell & Fitchburg, . . . . .	275,000 00	275,000 00	-	64,777 40	48,125 00	-	662,902 40
32	Lowell & Pelham, . . . . .	40,000 00	40,000 00	-	48,184 82	-	4,300 00	132,484 82
33	Marlborough & Westborough,* 6	160,000 00	160,000 00	-	87,258 04	6,840 50	9,084 34	423,182 88
34	Martha's Vineyard, . . . . .	8,000 00	-	-	-	-	-	8,000 00
35	Medfield & Medway, . . . . .	100,000 00	100,000 00	-	76,555 06	-	-	276,555 06
36	Middlesex & Boston, . . . . .	1,462,000 00	1,015,000 00	-	1,484,693 27	6,268 69	11,115 90	3,979,077 86
37	Milford, Attleborough & Woonsocket, . . . . .	315,000 00	250,000 00	-	62,509 20	7,787 86	9,329 01	644,626 07
38	Milford & Uxbridge, . . . . .	540,000 00 7	500,000 00	-	28,759 03	9,421 16	3,737 32	1,081,917 51
39	Mount Tom, . . . . .	100,000 00	-	-	-	-	-	100,000 00
40	Nahant & Lynn, . . . . .	100,000 00	100,000 00	-	13,671 85	1,719 65	2,500 00	217,891 50

<sup>1</sup> Common stock, \$11,043,200; preferred stock, \$1,311,900.<sup>2</sup> Common stock, \$2,025,000; preferred stock, \$297,000.<sup>3</sup> Common stock, \$295,000; preferred stock, \$110,000.<sup>4</sup> Common stock, \$500,000; preferred stock, \$120,000.<sup>6</sup> Consolidated with the Union November 1, 1910.<sup>8</sup> Consolidated with the Worcester Consolidated May 31, 1911.<sup>7</sup> Common stock, \$440,000; preferred stock, \$100,000.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

RAILWAY COMPANIES.		LIABILITIES JUNE 30, 1911 — Concluded.						
		8. — Capital Stock.	9. — Funded Debt.	10. — Real Estate Mortgages.	11. — Current Liabilities.	12. — Accrued Liabilities.	13. — Sinking and Other Reserve Funds.	14. — Gross Liabilities.
41	New Bedford & Onset,	\$550,000 00	{ \$150,000 00 <sup>1</sup> 280,000 00 }	—	\$4,342 23	\$4,769 40	\$62,334 50	{ \$150,000 00 <sup>1</sup> 901,446 13 }
42	Newtonville & Watertown,	50,000 00	—	—	59,650 00	—	—	109,650 00
43	Norfolk & Bristol,	200,000 00	200,000 00	—	2,809 43	—	—	402,809 43
44	Northampton,	700,000 00	—	—	65,000 00	—	—	765,000 00
45	North End,	110,000 00	75,000 00	—	—	—	—	185,000 00
46	Norton & Taunton,	297,000 00	296,000 00	—	143,497 36	—	—	736,497 36
47	Norwood, Canton & Sharon,	62,500 00	—	—	171,310 58	—	—	233,810 58
48	Oak Bluffs,	60,000 00	—	—	6,247 69	—	—	66,247 69
49	Old Colony,	8,780,800 00 <sup>2</sup>	8,225,500 00	—	973,732 13	158,412 56	81,096 64	18,219,541 33
50	Plymouth & Sandwich,	44,800 00	—	—	34,000 00	—	—	78,800 00
51	Point Shirley,	25,000 00	—	—	3,000 00	—	—	28,000 00
52	Providence & Fall River,	165,000 00	165,000 00	—	91,950 40	6,246 12	—	428,196 52
53	Shelburne Falls & Colrain,	50,000 00	95,700 00	—	750 00	—	—	146,450 00
54	Somerville,	153,000 00	—	—	—	—	—	153,000 00
55	Springfield,	3,708,100 00	2,105,000 00	—	1,143,260 98	150,105 85	66,586 68	7,173,053 51
56	Springfield & Eastern,* <sup>3</sup>	900,000 00	330,000 00	—	212,502 33	—	—	1,442,502 33
57	Taunton & Pawtucket,	100,000 00	200,000 00	—	76,598 80	501 38	—	377,100 18
58	Templeton,	75,000 00	—	—	450,734 98	—	—	525,734 98

59	Union,	.	.	.	.	.	.	1,625,000 00	500,000 00	-	46,476 78	56,789 55	117,377 51	2,345,643 84
60	Ware & Brookfield,	.	.	.	.	.	.	100,000 00	135,000 00	-	47,312 92	-	-	282,312 92
61	Warren, Brookfield & Spencer,	.	.	.	.	.	.	150,000 00	125,000 00	-	61,655 25	3,664 58	28,075 06	368,394 89
62	Webster & Dudley,	.	.	.	.	.	.	50,000 00	30,000 00	-	8,560 16	78,185 59	-	166,745 75
63	West End,	.	.	.	.	.	.	18,910,150 00 <sup>4</sup>	17,517,000 00	-	4,229 17	-	-	36,431,379 17
64	Winnistumet,	.	.	.	.	.	.	50,000 00	-	-	1,500 00	-	-	51,500 00
65	Worcester & Blackstone Valley, <sup>5</sup>	.	.	.	.	.	.	362,000 00	320,000 00	-	381,808 73	18,423 15	5,947 63	1,088,179 51
66	Worcester Consolidated,	.	.	.	.	.	.	5,112,000 00	4,512,000 00	-	1,514,423 81	221,675 90	66,972 16	11,427,071 87
67	Worcester & Holden, <sup>6</sup>	.	.	.	.	.	.	150,000 00	150,000 00	-	66,169 20	3,750 45	2,512 90	372,432 55
68	Worcester & Providence, <sup>6</sup>	.	.	.	.	.	.	30,000 00	-	-	-	-	-	30,000 00
69	Worcester & Shrewsbury R.R.,	.	.	.	.	.	.	36,825 00	22,000 00	-	-	-	-	58,825 00
70	Worcester & Shrewsbury St. Ry.,	.	.	.	.	.	.	20,000 00	-	-	-	-	-	20,000 00
71	Worcester & Southbridge, <sup>5</sup>	.	.	.	.	.	.	890,000 00	700,000 00	-	67,490 87	18,436 99	14,395 00	1,690,322 86
72	Worcester & Webster,	.	.	.	.	.	.	150,000 00	150,000 00	-	3,635 43	255,152 50	36,914 79	595,702 72
	Totals, <sup>7</sup>	.	.	.	.	.	.	\$86,639,175 00	\$71,508,700 00	\$5,300 00	\$17,882,304 85	\$4,332,614 21	\$4,059,630 16	\$184,427,734 22

<sup>1</sup> Property covered by a mortgage given by the Middleboro', Wareham & Buzzard's Bay, but not assumed by the New Bedford & Onset in the consolidation.

<sup>2</sup> Common stock, \$8,004,100; preferred stock, \$776,700.

<sup>3</sup> Consolidated with the Springfield December 1, 1910.

<sup>4</sup> Common stock, \$12,510,150; preferred stock, \$6,400,000.

<sup>5</sup> Consolidated with the Worcester Consolidated May 31, 1911.

<sup>6</sup> Obtained a certificate of incorporation but has not commenced the construction of its railway.

<sup>7</sup> Not including the companies marked \*, these companies having been consolidated during the year.

Tabulated Statements from Returns of Street Railway Companies — Continued.

	RAILWAY COMPANIES.	PROPERTY ACCOUNTS: ADDITIONS AND DEDUCTIONS DURING THE YEAR.						21. — Net Additions to Property Accounts.
		15. — Additions to Cost of Railway.	16. — To Equipment.	17. — To Land, Buildings, etc.	18. — To Other Permanent Property.	19. — Total Additions.	20. — Deductions.	
1	Amesbury and Hampton, . . . . .	-	-	-	-	-	-	-
2	Athol & Orange, . . . . .	\$518 49	\$6,222 62	\$21,982 56	\$19,642 50	\$48,366 17	\$56,958 07	\$8,591 90*
3	Berkshire, . . . . .	320,642 21	12,206 74	20,453 22	110 00	353,412 17	6,488 11	346,924 06
4	Blue Hill, . . . . .	-	204 00	-	-	294 00	266 50	27 50
5	Boston & Chelsea, . . . . .	-	-	-	-	-	-	-
6	Boston Elevated, . . . . .	3,871,540 28	7,805 50	1,322,419 52	70,931 08	5,272,786 38	19,424 52	5,253,361 86
7	Boston & Northern, . . . . .	359,259 17	51,151 76	165,611 46	-	576,022 39	29,926 49	546,095 90
8	Boston & Revere Electric, . . . . .	-	-	-	-	-	-	-
9	Boston & Worcester, . . . . .	47,627 02	51,193 37	1,658 80	-	100,479 89	5,310 62	95,169 27
10	Bristol & Norfolk, . . . . .	-	187 16	-	79 20	266 36	-	266 36
11	Brockton & Plymouth, . . . . .	97 21	-	270 00	-	367 21	125 00	242 21
12	Citizens' Electric, . . . . .	9,856 69	726 60	156 50	-	10,739 79	-	10,739 79
13	Concord, Maynard & Hudson, . . . . .	47 18	240 00	-	-	287 18	84 26	202 92
14	Connecticut Valley, . . . . .	116,151 82	1,840 24	50,797 08	6,385 56	175,174 70	129,187 71	45,986 99
15	Conway Electric, . . . . .	-	2,719 99	146 10	-	2,866 09	-	2,866 09
16	Dartmouth & Westport, . . . . .	1,951 90	-	3,854 13	-	5,806 03	-	5,806 03
17	Dedham & Franklin, . . . . .	-	-	-	-	-	-	-
18	East Middlesex, . . . . .	-	-	-	-	-	-	-

19	East Taunton, . . . . .	-	4,667 85	-	4,667 85	-	4,667 85
20	Fitchburg & Leominster, . . . . .	8,943 62	3,518 13	28,472 94	5,372 69	2,438 31	43,869 07
21	Gardner, Westminster & Fitchburg, . . . . .	1,023 63	212 50	66 00	-	3,425 00	2,122 87*
22	Haverhill & Amesbury, . . . . .	-	-	-	-	-	-
23	Haverhill & Plaistow, . . . . .	-	-	-	-	-	-
24	Haverhill & Southern New Hampshire, . . . . .	-	-	92 25	-	-	92 25
25	Holyoke, . . . . .	19,922 80	31,978 79	777 37	-	650 00	52,028 96
26	Interstate Consolidated, . . . . .	4,396 34	-	-	-	-	4,396 34
27	Lawrence & Methuen, . . . . .	-	-	-	-	-	-
28	Lexington & Boston, . . . . .	1,321 29	226 98	-	-	-	1,548 27
29	Linwood, . . . . .	-	-	-	-	2,453 10	2,453 10*
30	Lowell, Acton & Maynard, . . . . .	1,241 82	-	-	-	-	1,241 82
31	Lowell & Fitchburg, . . . . .	208 56	-	-	-	-	208 56
32	Lowell & Pelham, . . . . .	-	-	-	-	-	-
33	Marlborough & Westborough, . . . . .	100 65	-	-	-	-	100 65
34	Martha's Vineyard, . . . . .	-	-	-	-	-	-
35	Medfield & Medway, . . . . .	-	-	-	-	-	-
36	Middlesex & Boston, . . . . .	22,389 38	3,686 54	14,327 12	-	14,750 18	25,652 86
37	Millford, Attleborough & Woonsocket, . . . . .	1,006 87	40 80	216 81	-	113 00	1,151 48
38	Millford & Uxbridge, . . . . .	-	-	-	-	-	-
39	Mount Tom, . . . . .	-	-	-	-	-	-
40	Nahant & Lynn, . . . . .	177 00	10,645 57	3,560 60	-	13,553 14	830 03

\* Net deduction.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

RAILWAY COMPANIES.		PROPERTY ACCOUNTS: ADDITIONS AND DEDUCTIONS DURING THE YEAR — Concluded.						
		15. — Additions to Cost of Railway.	16. — To Equip- ment.	17. — To Land, Buildings, etc.	18. — To Other Perma- nent Property.	19. — Total Ad- ditions.	20. — Deduc- tions.	21. — Net Ad- ditions to Prop- erty Accounts.
41	New Bedford & Onset,	—	—	\$255 86	\$20 00	\$275 86	\$441 00	\$165 14*
42	Newtonville & Watertown,	—	—	—	—	—	—	—
43	Norfolk & Bristol,	\$2,021 21	\$11,066 67	—	—	13,087 88	—	13,087 88
44	Northampton,	3,504 78	2,444 69	—	—	5,949 47	—	5,949 47
45	North End,	—	—	—	—	—	—	—
46	Norton & Taunton,	—	1,915 50	225 00	—	2,140 50	—	2,140 50
47	Norwood, Canton & Sharon,	—	—	—	—	—	—	—
48	Oak Bluffs,	492 00	1,210 82	—	—	1,702 82	283 85	1,418 97
49	Old Colony,	144,864 55	62,975 47	98,350 85	—	306,190 87	4,056 33	302,134 54
50	Plymouth & Sandwich,	14,320 14	—	—	—	14,320 14	—	14,320 14
51	Point Shirley,	13,210 00	11,000 00	2,350 00	—	26,560 00	—	26,560 00
52	Providence & Fall River,	125 80	—	—	—	125 80	—	125 80
53	Shelburne Falls & Colrain,	324 21	—	1,000 00	110 78	1,434 99	—	1,434 99
54	Somerville,	—	—	—	—	—	—	—
55	Springfield,	1,187,444 61	232,997 34	121,470 82	28,973 83	1,570,886 60	—	1,570,886 60
56	Springfield & Eastern,	—	—	4,850 18	—	7,571 42	—	7,571 42
57	Taunton & Pawtucket,	—	—	—	—	—	—	—
58	Templeton,	—	—	—	—	—	—	—

59	Union, . . . . .	335,330 00	182,352 41	277,995 33	15,773 69	811,451 43	40 00	811,411 43
60	Ware & Brookfield, . . . . .	-	105 00	-	-	105 00	-	105 00
61	Warren, Brookfield & Spencer, . . . . .	499 38	613 99	248 74	-	1,362 11	-	1,362 11
62	Webster & Dudley, . . . . .	2,841 89	-	-	-	2,841 89	-	2,841 89
63	West End, . . . . .	119,301 57	40,963 13	70,674 16	51 53	230,990 39	65,593 57	165,396 82
64	Winnisimmet, . . . . .	-	-	-	-	-	-	-
65	Worcester & Blackstone Valley, . . . . .	105,657 82	28 80	259,947 71	-	365,634 33	100 00	365,534 33
66	Worcester Consolidated, . . . . .	2,165,560 37	698,354 37	1,058,750 23	32,125 46	3,954,790 43	50 00	3,954,740 43
67	Worcester & Holden, . . . . .	315 71	-	-	-	315 71	200 00	115 71
68	Worcester & Providence, . . . . .	-	-	-	-	-	-	-
69	Worcester & Shrewsbury R.R., . . . . .	-	-	-	-	-	-	-
70	Worcester & Shrewsbury St. Ry., . . . . .	-	-	-	-	-	-	-
71	Worcester & Southbridge, . . . . .	16,091 46	45 60	1,240 77	-	17,377 83	-	17,377 83
72	Worcester & Webster, . . . . .	1,342 61	-	-	-	1,342 61	-	1,342 61

\* Net deduction.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

		INCOME ACCOUNT FOR THE YEAR ENDING JUNE 30, 1911.						
		RAILWAY COMPANIES.						
		22. — Passenger Revenue.	23. — Baggage Revenue.	24. — Parlor, Chair and Special Car Revenue.	25. — Mail Revenue.	26. — Express Revenue.	27. — Milk Revenue.	28. — Freight Revenue.
1	Anesbury & Hampton,	\$23,934 67	—	\$630 72	—	—	—	\$49 74
2	Athol & Orange, .	44,812 85	—	—	—	—	—	—
3	Berkshire, .	728,767 68	\$38 83	5,179 16	—	\$11,734 73	\$72 80	135 14
4	Blue Hill, .	88,158 01	—	971 48	\$200 00	—	—	—
5	Boston & Chelsea, <sup>1</sup>	—	—	—	—	—	—	—
6	Boston Elevated,	15,199,970 59	—	28,013 49	37,289 59	—	—	—
7	Boston & Northern, .	5,205,466 14	—	39,947 47	1,636 81	—	—	—
8	Boston & Revere Electric, <sup>2</sup>	—	—	—	—	—	—	—
9	Boston & Worcester, .	603,546 76	—	3,836 05	451 25	—	—	—
10	Bristol & Norfolk,	14,232 65	—	—	40 00	—	—	—
11	Brockton & Plymouth,	110,821 99	—	638 40	595 69	4,061 67	—	—
12	Citizens' Electric,	104,650 78	—	221 98	142 65	—	—	1,000 71
13	Concord, Maynard & Hudson,	58,627 14	—	671 38	518 71	—	—	—
14	Connecticut Valley,	199,332 56	—	—	4,357 46	3,370 04	—	—
15	Conway Electric,	3,046 05	240 65	—	371 93	547 72	3,843 74	6,878 23
16	Dartmouth & Westport, <sup>3</sup>	92,123 31	—	541 70	852 49	28 80	—	11,849 75
17	Dedham & Franklin,	26,358 75	—	57 89	199 36	—	—	—
18	East Middlesex, <sup>3</sup>	—	—	—	—	—	—	—



19	East Taunton, . . . . .	45,152 00	-	-	-	-	-	-	-
20	Fitchburg & Leominster, . . . . .	291,625 90	-	1,356 28	-	250 00	6,234 23	-	-
21	Gardner, Westminster & Fitchburg, . . . . .	66,783 10	-	921 64	-	344 61	-	-	3,714 97
22	Haverhill & Amesbury, . . . . .	152,403 66	-	1,935 40	-	474 23	294 83	-	5 10
23	Haverhill & Plaistow, . . . . .	19,946 18	-	211 65	-	-	-	-	6 87
24	Haverhill & Southern New Hampshire, . . . . .	63,599 49	-	318 55	-	249 96	-	-	11 66
25	Holyoke, . . . . .	535,821 19	-	3,825 42	-	1,617 57	-	4,345 46	7,657 65
26	Interstate Consolidated, . . . . .	174,575 55	-	494 70	-	592 32	1,227 62	-	-
27	Lawrence & Methuen, . . . . .	108,319 00	-	1,178 25	-	-	-	-	-
28	Lexington & Boston, . . . . .	154,828 23	-	2,947 73	-	-	-	-	-
29	Linwood, . . . . .	18,993 48	-	-	-	209 97	-	-	-
30	Lowell, Acton & Maynard, . . . . .	8,813 47	-	-	-	-	-	-	-
31	Lowell & Fitchburg, . . . . .	51,931 19	-	170 00	-	-	-	-	-
32	Lowell & Pelham, . . . . .	10,144 25	-	138 70	-	-	-	-	1 00
33	Marlborough & Westborough, <sup>4</sup> . . . . .	35,325 55	-	130 17	-	-	14 01	-	6 00
34	Martha's Vineyard, <sup>5</sup> . . . . .	-	-	-	-	-	-	-	-
35	Medfield & Medway, . . . . .	19,035 16	-	54 38	-	-	-	-	-
36	Middlesex & Boston, . . . . .	683,920 37	-	3,072 18	-	1,142 07	-	-	2,539 44
37	Milford, Attleborough & Woonsocket, . . . . .	100,970 85	-	907 00	-	544 96	744 70	326 90	3 50
38	Milford & Uxbridge, . . . . .	189,756 70	-	1,061 59	-	507 24	852 50	-	-
39	Mount Tom, <sup>6</sup> . . . . .	-	-	-	-	-	-	-	-
40	Nahant & Lynn, . . . . .	63,448 36	-	-	-	-	-	-	-

<sup>1</sup> Leased to the Boston Elevated and re-leased to and operated by the Boston & Northern.

<sup>2</sup> Leased to and operated by the Boston & Northern.

<sup>3</sup> Operations to November 1, 1910, when consolidated with the Union.

<sup>4</sup> Operations to May 31, 1911, when consolidated with the Worcester Consolidated.

<sup>5</sup> Operated by the Oak Bluffs.

<sup>6</sup> Leased to and operated by the Holyoke.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

RAILWAY COMPANIES.		INCOME ACCOUNT FOR THE YEAR ENDING JUNE 30, 1911 — Continued.						
		22. — Passenger Revenue.	23. — Baggage Revenue.	24. — Parlor, Chair and Special Car Revenue.	25. — Mail Revenue.	26. — Express Revenue.	27. — Milk Revenue.	28. — Freight Revenue.
41	New Bedford & Onset,	\$114,218 26	-	\$988 75	\$2,637 75	\$933 40	-	\$9,886 53
42	Newtonville & Watertown, <sup>1</sup>	-	-	-	-	-	-	-
43	Norfolk & Bristol,	84,719 50	-	334 90	250 00	-	-	-
44	Northampton,	186,505 05	-	758 85	2,179 31	-	-	-
45	North End, <sup>2</sup>	-	-	-	-	-	-	-
46	Norton & Taunton,	60,909 40	-	-	399 81	-	-	-
47	Norwood, Canton & Sharon,	9,624 10	-	-	-	-	-	-
48	Oak Bluffs,	5,837 40	-	-	-	-	-	-
49	Old Colony,	3,038,876 35	-	12,625 93	4,699 45	83,723 16	\$2,025 70	-
50	Plymouth & Sandwich,	9,114 80	-	30 00	250 00	-	-	-
51	Point Shirley,	4,618 00	-	-	-	-	-	-
52	Providence & Fall River,	34,465 01	-	151 50	415 66	-	-	16,365 15
53	Shelburne Falls & Colrain,	10,558 85	-	-	249 73	-	1,549 20	14,406 19
54	Somerville, <sup>3</sup>	-	-	-	-	-	-	-
55	Springfield,	1,721,941 10	-	6,656 97	3,174 55	25,188 18	-	451 31
56	Springfield & Eastern, <sup>4</sup>	-	-	-	-	-	-	-
57	Taunton & Pawtucket,	50,402 23	-	-	-	-	-	-
58	Templeton,	44,499 00	-	510 60	314 12	972 39	111 25	2,972 06

59	Union,	.	.	.	.	.	724,915 02	-	2,816 29	2,975 02	79 00	-	21,951 79
60	Ware & Brookfield,	.	.	.	.	.	30,452 01	-	-	-	-	83 44	-
61	Warren, Brookfield & Spencer,	.	.	.	.	.	57,762 18	-	322 46	-	-	-	-
62	Webster & Dudley, <sup>5</sup>	.	.	.	.	.	-	-	-	-	-	-	-
63	West End, <sup>3</sup>	.	.	.	.	.	-	-	-	-	-	-	-
64	Winnisimmet, <sup>6</sup>	.	.	.	.	.	-	-	-	-	-	-	-
65	Worcester & Blackstone Valley, <sup>7</sup>	.	.	.	.	.	154,434 84	-	364 84	137 50	984 32	-	111 39
66	Worcester Consolidated,	.	.	.	.	.	1,874,821 56	-	5,098 73	2,342 87	5,716 54	-	73 13
67	Worcester & Holden, <sup>7</sup>	.	.	.	.	.	39,776 05	-	50 41	251 80	35 61	-	-
68	Worcester & Providence,	.	.	.	.	.	-	-	-	-	-	-	-
69	Worcester & Shrewsbury R.R., <sup>2</sup>	.	.	.	.	.	-	-	-	-	-	-	-
70	Worcester & Shrewsbury St. Ry., <sup>2</sup>	.	.	.	.	.	-	-	-	-	-	-	-
71	Worcester & Southbridge, <sup>7</sup>	.	.	.	.	.	245,030 23	-	1,734 27	1,908 37	3,182 46	-	47 25
72	Worcester & Webster, <sup>8</sup>	.	.	.	.	.	-	-	-	-	-	-	-
	Totals,	.	.	.	.	.	\$33,802,724 55	\$279 48	\$131,877 86	\$74,774 81	\$149,925 91	\$12,358 49	\$100,124 56

<sup>1</sup> Tracks used by the Boston Elevated and the Middlesex & Boston.<sup>2</sup> Leased to and operated by the Worcester Consolidated.<sup>3</sup> Leased to and operated by the Boston Elevated.<sup>4</sup> Leased to and operated by the Springfield until December 1, 1910, when consolidated with that company.<sup>5</sup> Leased to and operated by the Worcester & Southbridge until May 31, 1911, when that company was consolidated with the Worcester Consolidated.<sup>6</sup> Leased to and operated by the Boston & Northern.<sup>7</sup> Operations to May 31, 1911, when consolidated with the Worcester Consolidated.<sup>8</sup> Leased to the Webster & Dudley and operated by the Worcester & Southbridge until May 31, 1911, when the Worcester & Southbridge was consolidated with the Worcester Consolidated.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		INCOME ACCOUNT FOR THE YEAR ENDING JUNE 30, 1911 — Continued.						
		29. — Miscellaneous Transportation Revenue.	30. — Total Revenue from Transportation.	31. — Total Revenue from Operations other than Transportation.	32. — Total Operating Revenues.	33. — Rents from Lease of Road.	34. — Miscellaneous Income.	35. — Gross Income.
1	Amesbury & Hampton,	-	\$24,615 13	\$113 00	\$24,728 13	-	\$351 10	\$25,079 23
2	Athol & Orange,	-	44,812 85	407 37	45,220 22	-	-	45,220 22
3	Berkshire,	-	745,928 34	15,853 75	761,782 09	-	1,163 03	762,945 12
4	Blue Hill,	-	89,329 49	3,487 94	92,817 43	-	29 95	92,847 38
5	Boston & Chelsea, <sup>1</sup>	-	-	-	-	\$7,560 00	45 20	7,605 20
6	Boston Elevated,	\$3,669 43	15,268,943 10	367,022 46	15,635,965 56	-	344,742 38	15,980,707 94
7	Boston & Northern,	6,116 66	5,253,167 08	61,224 38	5,314,391 46	-	12,277 25	5,326,668 71
8	Boston & Revere Electric, <sup>2</sup>	-	-	-	-	2,500 00	-	2,500 00
9	Boston & Worcester,	200 00	608,034 06	5,937 49	613,971 55	-	1,715 08	615,686 63
10	Bristol & Norfolk,	-	14,272 65	460 90	14,733 55	-	-	14,733 55
11	Brockton & Plymouth,	-	116,117 75	4,291 78	120,409 53	-	291 59	120,701 12
12	Citizens' Electric,	-	106,016 12	2,885 66	108,901 78	-	-	108,901 78
13	Concord, Maynard & Hudson,	210 00	60,027 23	3,467 16	63,494 39	-	79 35	63,573 74
14	Connecticut Valley,	-	207,060 06	1,213 09	208,273 15	-	-	208,273 15
15	Conway Electric,	1,713 01	16,641 33	1,409 92	18,051 25	-	-	18,051 25
16	Dartmouth & Westport, <sup>3</sup>	140 00	105,536 05	2,047 23	107,583 28	-	4,996 89	112,580 17
17	Dedham & Franklin,	-	26,616 00	900 00	27,516 00	-	-	27,516 00
18	East Middlesex, <sup>2</sup>	-	-	-	-	30,658 69	571 88	31,230 57

19	East Taunton,	.	.	.	.	45,152 00	-	45,152 00	-	470 54	45,022 54
20	Fitchburg & Leominster,	.	.	.	.	299,466 41	6,141 46	305,607 87	-	558 58	306,166 45
21	Gardner, Westminster & Fitchburg,	.	.	.	.	71,764 32	1,630 83	73,395 15	-	-	73,395 15
22	Haverhill & Amesbury,	.	.	.	.	155,113 22	524 17	155,637 39	-	57 05	155,694 44
23	Haverhill & Plaistow,	.	.	.	.	20,164 70	48 00	20,212 70	-	-	20,212 70
24	Haverhill & Southern New Hampshire,	.	.	.	.	64,179 66	138 00	64,317 66	-	-	64,317 66
25	Holyoke,	.	.	.	.	553,267 29	4,147 92	557,415 21	-	11,992 37	569,407 58
26	Interstate Consolidated,	.	.	.	.	176,890 19	2,518 02	179,408 21	-	1,335 21	180,743 42
27	Lawrence & Methuen,	.	.	.	.	109,497 25	204 00	109,701 25	-	166 72	109,867 97
28	Lexington & Boston,	.	.	.	.	157,775 96	3,951 94	161,727 90	-	77 77	161,805 67
29	Linwood,	.	.	.	.	19,388 64	-	19,388 64	-	-	19,388 64
30	Lowell, Acton & Maynard,	.	.	.	.	8,813 47	-	8,813 47	-	-	8,813 47
31	Lowell & Fitchburg,	.	.	.	.	52,101 19	904 58	53,005 77	-	64 78	53,070 55
32	Lowell & Pelham,	.	.	.	.	10,283 95	48 00	10,331 95	-	-	10,331 95
33	Marlborough & Westborough, <sup>4</sup>	.	.	.	.	35,475 73	3,204 18	38,679 91	-	171 49	38,851 40
34	Martha's Vineyard, <sup>5</sup>	.	.	.	.	-	-	-	420 00	-	420 00
35	Medfield & Medway,	.	.	.	.	19,089 54	60 00	19,149 54	-	-	19,149 54
36	Middlesex & Boston,	.	.	.	.	690,674 06	10,450 72	701,124 78	-	365 15	701,489 93
37	Milford, Attleborough & Woonsocket,	.	.	.	.	103,497 91	3,608 39	107,106 30	-	602 25	107,708 55
38	Milford & Uxbridge,	.	.	.	.	193,011 13	18,841 43	211,852 56	-	-	211,852 56
39	Mount Tom, <sup>6</sup>	.	.	.	.	-	-	-	6,000 00	190 91	6,190 91
40	Nahant & Lynn,	.	.	.	.	63,448 36	-	63,448 36	-	-	63,448 36

<sup>1</sup> Leased to the Boston Elevated and re-leased to and operated by the Boston & Northern.

<sup>2</sup> Leased to and operated by the Boston & Northern.

<sup>3</sup> Operations to November 1, 1910, when consolidated with the Union.

<sup>4</sup> Operations to May 31, 1911, when consolidated with the Worcester Consolidated.

<sup>5</sup> Operated by the Oak Bluffs.

<sup>6</sup> Leased to and operated by the Holyoke.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		INCOME ACCOUNT FOR THE YEAR ENDING JUNE 30, 1911 — Concluded.						
		29. — Miscel- laneous Transporta- tion Revenue.	30. — Total Rev- enue from Transportation.	31. — Total Rev- enue from Oper- ations other than Transportation.	32. — Total Op- erating Revenues.	33. — Rents from Lease of Road.	34. — Miscel- laneous Income.	35. — Gross Income.
41	New Bedford & Onset,	\$350 00	\$129,014 69	\$6,493 29	\$135,507 98	—	—	\$135,507 98
42	Newtonville & Watertown, <sup>1</sup>	—	—	—	—	\$8,311 00	—	8,311 00
43	Norfolk & Bristol,	—	85,304 40	6,222 76	91,527 16	—	\$59 77	91,586 93
44	Northampton,	—	189,443 21	1,262 29	190,705 50	—	129 91	190,835 41
45	North End, <sup>2</sup>	—	—	—	—	8,000 00	17 64	8,017 64
46	Norton & Taunton,	—	61,309 21	258 91	61,568 12	—	—	61,568 12
47	Norwood, Canton & Sharon,	—	9,624 10	465 44	10,089 54	—	—	10,089 54
48	Oak Bluffs,	10 36	5,847 76	—	5,847 76	—	—	5,847 76
49	Old Colony,	32 79	3,141,983 38	81,477 47	3,223,460 85	—	155,091 58	3,378,552 43
50	Plymouth & Sandwich,	—	9,394 80	51 10	9,445 90	—	—	9,445 90
51	Point Shirley,	—	4,618 00	8 00	4,626 00	—	—	4,626 00
52	Providence & Fall River,	—	51,397 32	3,065 61	54,462 93	—	—	54,462 93
53	Shelburne Falls & Colrain,	—	26,763 97	1,441 19	28,205 16	—	—	28,205 16
54	Somerville, <sup>3</sup>	—	—	—	—	9,180 00	—	9,180 00
55	Springfield,	1,901 52	1,759,313 63	30,587 33	1,789,900 96	—	1,542 34	1,791,443 30
56	Springfield & Eastern, <sup>4</sup>	—	—	—	—	7,609 02	—	7,609 02
57	Taunton & Pawtucket,	—	50,402 23	313 14	50,715 37	—	78 10	50,793 47
58	Templeton,	210 00	49,589 42	1,606 30	51,195 72	—	266 83	51,462 55

59	Union, . . . . .	2,605 50	755,402 62	14,982 68	770,385 30	-	1,778 20	772,163 50
60	Ware & Brookfield, . . . . .	-	30,535 45	648 72	31,184 17	-	11 33	31,195 50
61	Warren, Brookfield & Spencer, . . . . .	86 05	58,170 69	263 00	58,433 69	-	-	58,433 69
62	Webster & Dudley, <sup>5</sup> . . . . .	-	-	-	-	14,500 00	-	14,500 00
63	West End, <sup>3</sup> . . . . .	-	-	-	-	8,500 00	1,339,150 44	1,347,650 44
64	Winnisimmet, <sup>8</sup> . . . . .	-	-	-	-	3,000 00	-	3,000 00
65	Worcester & Blackstone Valley, <sup>7</sup> . . . . .	-	156,032 89	26,157 24	182,190 13	-	420 35	182,610 48
66	Worcester Consolidated, . . . . .	3,211 00	1,891,263 83	27,174 03	1,918,437 86	-	3,538 99	1,921,976 85
67	Worcester & Holden, <sup>7</sup> . . . . .	-	40,113 87	139 35	40,253 22	-	349 64	40,602 86
68	Worcester & Providence, . . . . .	-	-	-	-	-	-	-
69	Worcester & Shrewsbury R.R., <sup>2</sup> . . . . .	-	-	-	-	2,650 00	1,100 00	3,750 00
70	Worcester & Shrewsbury St. Ry., <sup>2</sup> . . . . .	-	-	-	-	1,000 00	-	1,000 00
71	Worcester & Southbridge, <sup>7</sup> . . . . .	-	251,902 58	13,634 80	265,537 38	-	787 96	266,325 34
72	Worcester & Webster, <sup>8</sup> . . . . .	-	-	-	-	10,500 00	-	10,500 00
	Totals, . . . . .	\$21,534 61	\$34,293,600 27	\$743,396 42	\$35,036,996 69	\$120,388 71	\$1,886,639 60	\$37,044,025 00

<sup>1</sup> Tracks used by the Boston Elevated and the Middlesex & Boston.

<sup>2</sup> Leased to and operated by the Worcester Consolidated.

<sup>3</sup> Leased to and operated by the Boston Elevated.

<sup>4</sup> Leased to and operated by the Springfield until December 1, 1910, when consolidated with that company.

<sup>5</sup> Leased to and operated by the Worcester & Southbridge until May 31, 1911, when that company was consolidated with the Worcester Consolidated.

<sup>6</sup> Leased to and operated by the Boston & Northern.

<sup>7</sup> Operations to May 31, 1911, when consolidated with the Worcester Consolidated.

<sup>8</sup> Leased to the Webster & Dudley and operated by the Worcester & Southbridge until May 31, 1911, when the Worcester & Southbridge was consolidated with the Worcester Consolidated.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

RAILWAY COMPANIES.		OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1911.						
		36. — Superintendence of Way and Structures.	37. — Maintenance of Way.	38. — Maintenance of Electric Lines.	39. — Buildings and Structures.	40. — Other Operations — Dr.	41. — Other Operations — Cr.	42. — Superintendence of Equipment.
1	Amesbury & Hampton,	\$94 50	\$1,437 41	\$630 79	\$117 58	—	—	\$104 02
2	Athol & Orange, .	173 79	2,419 67	1,099 68	1,044 56	\$323 91	—	76 07
3	Berkshire, .	2,951 57	57,255 42	13,015 11	2,304 27	—	—	3,422 50
4	Blue Hill, .	—	5,639 14	911 19	164 60	—	—	—
5	Boston & Chelsea,	—	—	—	—	—	—	—
6	Boston Elevated,	82,105 68	1,145,180 20	185,952 08	142,924 94	—	—	86,808 73
7	Boston & Northern,	34,528 90	282,494 16	70,320 62	26,755 11	—	—	16,607 81
8	Boston & Revere Electric,	—	—	—	—	—	—	—
9	Boston & Worcester,	1,087 25	33,727 29	13,067 65	896 29	—	—	5,024 70
10	Bristol & Norfolk,	1,094 90	—	198 82	62 87	—	—	—
11	Brockton & Plymouth,	—	3,865 92	1,950 39	429 94	—	—	—
12	Citizens' Electric,	728 00	9,391 22	2,169 12	521 79	—	—	933 43
13	Concord, Maynard & Hudson,	260 00	4,627 38	806 02	70 11	—	—	260 00
14	Connecticut Valley,	661 14	9,737 87	2,781 78	243 97	—	—	3,338 63
15	Conway Electric,	—	893 02	18 00	1,079 36	—	—	—
16	Dartmouth & Westport, <sup>1</sup>	189 12	4,640 85	2,858 51	—	214 88	—	196 00
17	Dedham & Franklin,	117 32	1,292 25	7 91	186 53	—	—	—
18	East Middlesex, .	—	—	—	—	—	—	—



19	East Taunton, . . . . .	1,000 00	2,453 16	730 47	16 31	-	-	-	-
20	Fitchburg & Leominster, . . . . .	867 00	18,342 90	3,531 78	412 31	-	-	-	900 00
21	Gardner, Westminster & Fitchburg, . . . . .	-	4,315 37	891 06	157 85	-	-	-	-
22	Haverhill & Amesbury, . . . . .	692 50	16,903 26	1,241 96	3,523 14	-	-	-	284 65
23	Haverhill & Plaisow, . . . . .	58 50	795 26	342 29	64 15	-	-	-	57 28
24	Haverhill & Southern New Hampshire, . . . . .	51 30	4,919 95	1,098 28	177 45	-	-	-	73 97
25	Holyoke, . . . . .	1,560 00	73,274 87	12,838 37	3,382 69	-	-	-	-
26	Interstate Consolidated, . . . . .	-	10,650 47	3,559 25	191 94	-	-	-	-
27	Lawrence & Methuen, . . . . .	379 60	13,161 76	1,653 01	267 48	-	-	-	112 87
28	Lexington & Boston, . . . . .	910 00	7,940 24	4,945 08	555 42	-	-	-	2,392 00
29	Linwood, . . . . .	-	9 77	-	-	-	-	-	-
30	Lowell, Acton & Maynard, . . . . .	-	105 60	16 60	-	-	-	-	-
31	Lowell & Fitchburg, . . . . .	676 81	3,318 77	1,012 59	32 14	-	-	-	429 97
32	Lowell & Pelham, . . . . .	76 50	2,735 66	234 51	39 88	-	-	-	15 51
33	Marlborough & Westborough, <sup>2</sup> . . . . .	383 00	3,737 02	680 38	12 37	-	-	-	13 81
34	Martha's Vineyard, . . . . .	-	-	-	-	-	-	-	-
35	Medfield & Medway, . . . . .	117 32	884 66	117 71	-	-	-	-	-
36	Middlesex & Boston, . . . . .	3,347 76	30,193 30	14,670 99	7,038 81	-	-	-	2,786 00
37	Milford, Attleborough & Woonsocket, . . . . .	-	12,431 95	1,520 50	104 86	-	-	-	31 97
38	Milford & Uxbridge, . . . . .	-	15,779 45	4,203 07	931 95	-	-	-	-
39	Mount Tom, . . . . .	-	-	-	-	-	-	-	-
40	Nahant & Lynn, . . . . .	-	4,361 62	174 41	80 46	-	-	-	-

<sup>1</sup> Operations to November 1, 1910, when consolidated with the Union.<sup>2</sup> Operations to May 31, 1911, when consolidated with the Worcester Consolidated.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

RAILWAY COMPANIES.		OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1911 — Continued.						
		36. — Superin- tendence of Way and Structures.	37. — Mainte- nance of Way.	38. — Mainte- nance of Electric Lines.	39. — Buildings and Structures.	40. — Other Op- erations — Dr.	41. — Other Op- erations — Cr.	42. — Superin- tendence of Equipment.
41	New Bedford & Onset,	\$912 50	\$8,540 21	\$2,023 19	\$316 84	\$1,625 51	—	\$1,086 72
42	Newtonville & Watertown,	—	—	—	—	—	—	—
43	Norfolk & Bristol,	4,600 00	4,556 72	1,461 97	—	—	—	1,598 33
44	Northampton,	—	28,071 69	3,546 52	335 62	—	—	—
45	North End,	—	—	—	—	—	—	—
46	Norton & Taunton,	—	5,919 00	2,433 42	845 13	—	—	375 00
47	Norwood, Canton & Sharon,	1,200 00	983 11	176 30	32 44	—	—	—
48	Oak Bluffs,	—	561 36	9 83	28 13	—	—	—
49	Old Colony,	23,252 40	152,635 18	63,388 73	16,516 33	658 05	—	12,846 99
50	Plymouth & Sandwich,	—	1,089 36	47 50	—	—	—	—
51	Point Shirley,	—	68 00	—	—	—	—	—
52	Providence & Fall River,	—	2,330 11	202 59	87 75	—	—	875 00
53	Shelburne Falls & Colrain,	—	2,446 02	845 22	108 95	—	—	—
54	Somerville,	—	—	—	—	—	—	—
55	Springfield,	4,564 33	124,012 94	31,521 08	4,874 10	—	—	2,978 45
56	Springfield & Eastern,	—	—	—	—	—	—	—
57	Taunton & Pawtucket,	—	3,909 82	421 43	812 26	—	—	—
58	Templeton,	520 00	5,135 91	494 43	83 77	—	—	520 00

59	Union, . . . . .	1,248 90	46,277 15	5,792 40	2,031 57	6,201 06	-	1,918 27
60	Ware & Brookfield, . . . . .	-	3,050 25	303 53	9 82	-	-	-
61	Warren, Brookfield & Spencer, . . . . .	300 00	5,739 74	1,015 82	47	-	-	300 00
62	Webster & Dudley, . . . . .	-	-	-	-	-	-	-
63	West End, . . . . .	-	-	-	-	-	-	-
64	Winnimmet, . . . . .	-	-	-	-	-	-	-
65	Worcester & Blackstone Valley, <sup>1</sup> . . . . .	20 02	11,983 22	3,624 77	759 29	-	-	49 86
66	Worcester Consolidated, . . . . .	9,346 66	133,646 93	34,448 05	3,458 87	-	-	5,241 02
67	Worcester & Holden, <sup>1</sup> . . . . .	-	684 80	358 23	3 99	-	-	12 92
68	Worcester & Providence, . . . . .	-	-	-	-	-	-	-
69	Worcester & Shrewsbury R.R., . . . . .	-	-	-	-	-	-	-
70	Worcester & Shrewsbury St. Ry., . . . . .	-	-	-	-	-	-	-
71	Worcester & Southbridge, <sup>1</sup> . . . . .	659 79	10,652 30	4,441 76	321 06	-	-	81 87
72	Worcester & Webster, . . . . .	-	-	-	-	-	-	-
	Totals, . . . . .	\$180,737 06	\$2,352,216 66	\$505,807 35	\$224,417 52	\$9,023 41	-	\$151,814 35

<sup>1</sup> Operations to May 31, 1911, when consolidated with the Worcester Consolidated.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1911 — Continued.						
		43. — Maintenance of Power Equipment.	44. — Maintenance of Cars and Locomotives.	45. — Maintenance of Electric Equipment of Cars and Locomotives.	46. — Miscellaneous Equipment Expenses.	47. — Other Operations — Dr.	48. — Other Operations — Cr.	49. — General Expenses.
1	Amesbury & Hampton,	-	\$1,180 12	\$866 20	\$74 73	-	-	\$1,443 63
2	Athol & Orange, .	-	3,644 11	2,564 00	9 58	-	-	2,906 78
3	Berkshire, . . . .	\$11,003 68	48,088 55	34,589 94	1,224 27	-	-	38,853 57
4	Blue Hill, . . . .	737 82	1,647 31	1,260 13	566 00	-	-	6,676 14
5	Boston & Chelsea,	-	-	-	-	-	-	-
6	Boston Elevated,	175,651 15	582,602 95	299,295 30	125,480 28	-	-	654,076 24
7	Boston & Northern,	41,916 23	190,219 81	162,094 39	28,534 21	-	-	181,543 35
8	Boston & Revere Electric,	-	-	-	-	-	-	-
9	Boston & Worcester,	7,363 51	27,386 00	25,899 73	7,975 03	-	-	23,217 71
10	Bristol & Norfolk,	-	1,347 84	889 06	-	-	-	107 99
11	Brockton & Plymouth,	1,257 96	4,994 83	5,625 06	597 57	-	-	10,982 56
12	Citizens' Electric,	55 55	4,859 87	1,712 34	737 22	-	-	10,428 03
13	Concord, Maynard & Hudson,	1,268 25	3,218 67	1,638 12	34 63	-	-	1,817 73
14	Connecticut Valley,	-	7,004 05	5,340 67	2,731 88	-	-	11,483 08
15	Conway Electric,	257 17	453 01	399 64	25 50	-	-	802 42
16	Dartmouth & Westport, <sup>1</sup>	2,568 42	1,574 18	-	-	-	-	2,043 71
17	Dedham & Franklin,	-	1,442 87	1,072 70	61 22	-	-	1,503 77
18	East Middlesex,	-	-	-	-	-	-	-

19	East Taunton, . . . . .	-	2,745 77	380 67	777 53	-	1,164 93
20	Fitchburg & Leominster, . . . . .	155 01	10,179 21	7,894 96	708 54	-	14,274 77
21	Gardner, Westminster & Fitchburg, . . . . .	345 95	2,186 31	1,266 64	126 76	-	4,473 06
22	Haverhill & Amesbury, . . . . .	-	6,050 53	3,092 49	297 61	-	5,741 52
23	Haverhill & Plaistow, . . . . .	-	659 42	456 07	37 72	-	761 77
24	Haverhill & Southern New Hampshire, . . . . .	-	3,693 32	2,983 67	148 78	-	2,974 14
25	Holyoke, . . . . .	3,282 65	29,751 55	20,451 88	130 56	-	21,872 39
26	Interstate Consolidated, . . . . .	4 82	-	-	11 82	-	6,481 33
27	Lawrence & Methuen, . . . . .	-	5,615 71	4,516 15	224 05	-	4,540 52
28	Lexington & Boston, . . . . .	8,116 10	7,191 77	9,207 04	510 12	-	4,794 91
29	Linwood, . . . . .	-	821 95	467 27	-	-	813 95
30	Lowell, Acton & Maynard, . . . . .	-	89 31	-	-	-	442 71
31	Lowell & Fitchburg, . . . . .	3,285 20	1,664 77	682 49	345 60	-	2,508 30
32	Lowell & Pelham, . . . . .	-	784 40	644 40	32 54	-	623 14
33	Marlborough & Westborough, <sup>2</sup> . . . . .	-	1,633 59	2,153 87	-	-	628 53
34	Martha's Vineyard, . . . . .	-	-	-	-	-	-
35	Medfield & Medway, . . . . .	-	974 74	1,408 06	23 15	-	912 78
36	Middlesex & Boston, . . . . .	1,244 84	23,245 85	22,308 15	2,521 77	-	24,383 23
37	Milford, Attleborough & Woonsocket, . . . . .	481 77	3,893 44	4,034 39	85 88	-	3,518 33
38	Milford & Uxbridge, . . . . .	4,978 48	5,520 32	6,996 12	-	-	7,306 53
39	Mount Tom, . . . . .	-	-	-	-	-	-
40	Nahant & Lynn, . . . . .	-	926 05	3,942 24	7 96	-	8,501 87

<sup>1</sup> Operations to November 1, 1910, when consolidated with the Union.<sup>2</sup> Operations to May 31, 1911, when consolidated with the Worcester Consolidated.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1911 — Continued.								
RAILWAY COMPANIES.								
		43. — Maintenance of Power Equipment.	44. — Maintenance of Cars and Locomotives.	45. — Maintenance of Electric Equipment of Cars and Locomotives.	46. — Miscellaneous Equipment Expenses.	47. — Other Operations — Dr.	48. — Other Operations — Cr.	49. — General Expenses.
41	New Bedford & Onset,	\$1,097 27	\$5,453 24	\$4,950 95	\$50 07	—	—	\$268 57
42	Newtownville & Watertown,	—	—	—	—	—	—	—
43	Norfolk & Bristol,	—	3,120 40	5,939 35	16 14	—	—	1,694 64
44	Northampton,	2,929 60	12,933 86	9,352 87	883 63	—	—	9,025 90
45	North End,	—	—	—	—	—	—	—
46	Norton & Taunton,	338 56	2,828 31	2,628 18	447 24	—	—	2,988 31
47	Norwood, Canton & Sharon,	—	443 12	305 48	—	—	—	88 48
48	Oak Bluffs,	—	37 47	304 57	—	—	—	159 95
49	Old Colony,	42,780 53	118,589 60	86,643 70	12,688 63	\$1,225 10	—	118,321 61
50	Plymouth & Sandwich,	—	588 07	2 00	—	—	—	441 15
51	Point Shirley,	—	796 25	—	—	—	—	485 15
52	Providence & Fall River,	—	3,681 18	3,947 65	880 98	—	—	4,424 28
53	Shelburne Falls & Colrain,	1,299 24	352 82	974 81	—	—	—	3,630 86
54	Somerville,	—	—	—	—	—	—	—
55	Springfield,	31,645 61	63,159 14	66,867 15	5,169 92	—	—	62,093 12
56	Springfield & Eastern,	—	—	—	—	—	—	—
57	Taunton & Pawtucket,	1,656 11	3,726 92	3,641 98	85 35	—	—	5,150 23
58	Templeton,	—	7,974 86	1,237 20	—	—	—	3,294 46

59	Union, . . . . .	4,018 18	18,395 56	12,419 09	3,151 82	-	-	22,941 68
60	Ware & Brookfield, . . . . .	1,974 40	1,970 94	75 60	-	-	-	2,024 76
61	Warren, Brookfield & Spencer, . . . . .	1,077 71	2,491 96	3,108 05	-	-	-	2,195 06
62	Webster & Dudley, . . . . .	-	-	-	-	-	-	-
63	West End, . . . . .	-	-	-	-	-	-	-
64	Winnisimmet, . . . . .	-	-	-	-	-	-	-
65	Worcester & Blackstone Valley, <sup>1</sup> . . . . .	848 14	8,797 54	5,443 44	21 11	-	-	6,585 38
66	Worcester Consolidated, . . . . .	28,316 72	72,294 36	78,913 49	4,991 53	-	-	47,568 29
67	Worcester & Holden, . . . . .	-	1,048 41	1,093 19	-	-	-	63 70
68	Worcester & Providence, . . . . .	-	-	-	-	-	-	-
69	Worcester & Shrewsbury R.R., . . . . .	-	-	-	-	-	-	-
70	Worcester & Shrewsbury St. Ry., . . . . .	-	-	-	-	-	-	-
71	Worcester & Southbridge, <sup>1</sup> . . . . .	988 87	7,483 51	9,796 24	144 77	-	-	11,505 55
72	Worcester & Webster, . . . . .	-	-	-	-	-	-	-
	Totals, . . . . .	\$382,945 50	\$1,323,459 70	\$933,748 83	\$202,573 70	\$1,225 10	-	\$1,369,675 55

<sup>1</sup> Operations to May 31, 1911, when consolidated with the Worcester Consolidated.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

RAILWAY COMPANIES.		OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1911 — Continued.						
		50. — Other Op- erations — Dr.	51. — Other Op- erations — Cr.	52. — Injuries and Damages.	53. — Insurance.	54. — Stationery and Printing.	55. — Store and Stable Expenses.	56. — Rent of Tracks and Terminals.
1	Annsbury & Hampton,	—	—	\$718 05	\$414 00	\$89 86	\$108 76	\$100 00
2	Athol & Orange, .	\$80 77	—	48 25	668 38	34 50	—	—
3	Berkshire, . . . .	—	—	21,625 73	7,192 07	1,634 16	4,292 95	16 00
4	Blue Hill, . . . .	—	—	3,026 10	1,318 24	195 99	120 48	293 84
5	Boston & Chelsea,	—	—	—	—	—	—	—
6	Boston Elevated,	—	—	778,738 27	80,816 17	36,884 22	89,980 75	4,527 24
7	Boston & Northern,	—	—	260,798 74	43,419 27	14,788 73	29,632 01	62,394 66
8	Boston & Revere Electric,	—	—	—	—	—	—	—
9	Boston & Worcester,	—	—	17,813 35	9,600 00	1,134 19	—	677 74
10	Bristol & Norfolk,	—	—	—	199 18	320 47	—	205 86
11	Brockton & Plymouth,	—	—	6,035 06	2,596 51	462 13	183 13	—
12	Citizens' Electric,	—	—	1,857 25	1,956 86	297 97	—	151 99
13	Concord, Maynard & Hudson,	—	—	182 60	1,464 99	70 57	—	750 00
14	Connecticut Valley,	—	—	496 71	5,205 10	349 62	—	—
15	Conway Electric,	—	—	—	151 75	69 01	—	—
16	Dartmouth & Westport, <sup>1</sup>	—	—	2,779 95	883 75	34 00	—	12,062 11
17	Dedham & Franklin,	—	—	128 65	442 60	64 62	—	—
18	East Middlesex,	—	—	—	—	—	—	—



19	East Taunton, . . . . .	-	645 55	338 50	524 75	-	346 36
20	Fitchburg & Leominster, . . . . .	-	15,061 82	3,078 38	448 02	822 16	-
21	Gardner, Westminster & Fitchburg, . . . . .	-	3,207 09	1,800 00	209 35	-	-
22	Haverhill & Amesbury, . . . . .	-	4,572 12	1,383 23	486 76	613 14	1,270 96
23	Haverhill & Plaistow, . . . . .	-	598 40	206 00	48 10	58 61	-
24	Haverhill & Southern New Hampshire, . . . . .	-	1,907 99	691 00	204 93	230 78	-
25	Holyoke, . . . . .	-	18,906 68	3,672 96	105 93	716 69	458 95
26	Interstate Consolidated, . . . . .	-	14,005 62	685 74	390 52	-	-
27	Lawrence & Methuen, . . . . .	-	3,249 59	1,089 55	307 98	352 83	732 98
28	Lexington & Boston, . . . . .	-	7,741 40	3,039 96	412 14	-	-
29	Linwood, . . . . .	-	-	540 00	253 50	-	1,580 38
30	Lowell, Acton & Maynard, . . . . .	-	500 00	184 89	-	-	-
31	Lowell & Fitchburg, . . . . .	-	13 90	530 00	51 88	-	-
32	Lowell & Pelham, . . . . .	-	304 81	156 00	45 41	47 97	-
33	Marlborough & Westborough, <sup>2</sup> . . . . .	-	1,772 81	584 72	9 46	-	-
34	Martha's Vineyard, . . . . .	-	-	-	-	-	-
35	Medfield & Medway, . . . . .	-	5 00	150 60	94 93	-	751 00
36	Middlesex & Boston, . . . . .	-	18,748 86	7,153 20	1,856 61	-	3,039 24
37	Milford, Attleborough & Woonsocket, . . . . .	-	3,056 33	1,105 74	167 34	103 79	571 19
38	Milford & Uxbridge, . . . . .	-	10,579 83	2,580 00	92 20	-	-
39	Mount Tom, . . . . .	-	-	-	-	-	-
40	Nahant & Lynn, . . . . .	-	500 62	714 50	60 28	-	-

<sup>1</sup> Operations to November 1, 1910, when consolidated with the Union.<sup>2</sup> Operations to May 31, 1911, when consolidated with the Worcester Consolidated.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

RAILWAY COMPANIES.		OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1911 — Continued.							
		50. — Other Op- erations — Dr.	51. — Other Op- erations — Cr.	52. — Injuries and Damages.	53. — Insurance.	54. — Stationery and Printing.	55. — Store and Stable Expenses.	56. — Rent of Tracks and Terminals.	
41	New Bedford & Onset,	\$3,785 16	—	\$3,456 20	\$1,326 59	\$334 69	—	\$78 07	
42	Newtonville & Watertown,	—	—	—	—	—	—	—	
43	Norfolk & Bristol,	—	—	2,915 99	1,063 26	222 33	—	657 59	
44	Northampton,	—	—	8,133 19	1,766 69	222 07	\$237 29	101 72	
45	North End,	—	—	—	—	—	—	—	
46	Norton & Taunton,	—	—	475 80	1,244 00	—	—	1,648 36	
47	Norwood, Canton & Sharon,	—	—	30 30	267 76	—	—	—	
48	Oak Bluffs,	—	—	—	70 77	70 53	—	609 50	
49	Old Colony,	—	—	151,190 74	29,774 91	11,115 62	15,636 81	16,516 28	
50	Plymouth & Sandwich,	—	—	—	120 90	—	—	—	
51	Point Shirley,	—	—	50 00	106 60	66 25	—	—	
52	Providence & Fall River,	—	—	441 33	1,800 00	108 79	—	—	
53	Shelburne Falls & Colrain,	—	—	38 89	495 70	193 71	—	—	
54	Somerville,	—	—	—	—	—	—	—	
55	Springfield,	—	—	86,429 91	11,871 74	3,696 17	8,441 47	—	
56	Springfield & Eastern,	—	—	—	—	—	—	—	
57	Taunton & Pawtucket,	—	—	881 83	1,815 97	93 17	—	2,421 59	
58	Templeton,	—	—	2,243 70	—	333 49	—	—	

59 Union,	.	.	.	.	.	.	30,571 76	4,773 80	1,216 51	4,912 24	6,769 74
60 Ware & Brookfield,	.	.	.	.	.	.	-	1,066 39	-	-	-
61 Warren, Brookfield & Spencer,	.	.	.	.	.	.	538 10	960 00	172 25	-	-
62 Webster & Dudley,	.	.	.	.	.	.	-	-	-	-	-
63 West End,	.	.	.	.	.	.	-	-	-	-	-
64 Winnisimmet,	.	.	.	.	.	.	-	-	-	-	-
65 Worcester & Blackstone Valley, <sup>1</sup>	.	.	.	.	.	.	4,644 00	1,310 59	387 29	30	15 54
66 Worcester Consolidated,	.	.	.	.	.	.	96,408 25	14,354 57	3,921 43	8,178 26	553 70
67 Worcester & Holden, <sup>1</sup>	.	.	.	.	.	.	1,194 79	287 92	15 58	-	-
68 Worcester & Providence,	.	.	.	.	.	.	-	-	-	-	-
69 Worcester & Shrewsbury R.R.,	.	.	.	.	.	.	-	-	-	-	-
70 Worcester & Shrewsbury St. Ry.,	.	.	.	.	.	.	-	-	-	-	-
71 Worcester & Southbridge, <sup>1</sup>	.	.	.	.	.	.	14,230 85	2,804 19	565 23	28 92	-
72 Worcester & Webster,	.	.	.	.	.	.	-	-	-	-	-
Totals,	.	.	.	.	.	.	\$1,603,502 76	\$263,296 19	\$84,935 24	\$164,099 34	\$119,302 59

<sup>1</sup> Operations to May 31, 1911, when consolidated with the Worcester Consolidated.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

		OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1911 — Continued.						
		RAILWAY COMPANIES.						
		57. — Rent of Equipment.	58. — Traffic Expenses.	59. — Superintendence of Transportation.	60. — Power Plant Employees.	61. — Sub-station Employees.	62. — Fuel for Power.	63. — Other Power Supplies and Expenses.
1	Amesbury & Hampton,	—	\$569 21	\$1,095 48	—	—	—	—
2	Athol & Orange,	—	1,513 01	152 10	—	—	—	—
3	Berkshire,	\$1,612 23	4,762 59	12,767 42	\$30,700 36	\$2,979 86	\$96,908 98	\$4,226 54
4	Blue Hill,	267 29	74 42	2,079 09	3,500 98	—	7,399 51	507 50
5	Boston & Chelsea,	—	—	—	—	—	—	—
6	Boston Elevated,	—	105,730 16	279,242 27	222,696 16	3,095 74	837,127 67	116,374 23
7	Boston & Northern,	3,578 64	53,617 59	64,185 37	110,958 67	1,726 04	299,111 15	34,187 51
8	Boston & Revere Electric,	—	—	—	—	—	—	—
9	Boston & Worcester,	—	3,627 27	6,100 93	14,701 91	2,382 35	54,374 20	2,497 28
10	Bristol & Norfolk,	—	—	1,092 00	—	—	—	—
11	Brockton & Plymouth,	147 75	2,411 74	1,914 65	4,722 41	757 13	9,676 50	801 04
12	Citizens' Electric,	1,519 74	—	—	—	1,277 50	—	—
13	Concord, Maynard & Hudson,	—	57 72	327 26	3,427 87	—	7,526 19	330 00
14	Connecticut Valley,	256 21	1,781 60	2,696 60	4,274 09	—	2,498 66	1,327 86
15	Conway Electric,	—	—	—	1,776 74	—	551 92	2 55
16	Dartmouth & Westport, <sup>1</sup>	—	143 27	952 90	—	—	—	—
17	Dedham & Franklin,	—	52 00	351 97	—	—	—	—
18	East Middlesex,	—	—	—	—	—	—	—

19	East Taunton, . . . . .	1,147 61	-	-	5,890 53	9,101 61	-	-	-
20	Fitchburg & Leominster, . . . . .	1,225 59	2,811 51	-	-	-	-	26,181 44	1,913 70
21	Gardner, Westminster & Fitchburg, . . . . .	135 14	1,307 69	-	-	3,439 57	-	6,518 30	698 93
22	Haverhill & Amesbury, . . . . .	-	920 33	4,037 58	-	-	-	-	-
23	Haverhill & Plaistow, . . . . .	-	234 49	589 59	-	-	-	-	-
24	Haverhill & Southern New Hampshire, . . . . .	-	773 66	1,626 72	-	-	-	-	-
25	Holyoke, . . . . .	-	-	1,166 10	-	16,329 34	-	46,692 50	1,492 32
26	Interstate Consolidated, . . . . .	19,573 58	165 02	2,979 75	-	-	2,044 27	-	-
27	Lawrence & Methuen, . . . . .	-	1,105 43	2,448 53	-	-	-	-	-
28	Lexington & Boston, . . . . .	-	2,402 54	3,589 01	-	4,956 28	-	19,228 38	1,834 24
29	Linwood, . . . . .	-	20 00	-	-	-	-	-	-
30	Lowell, Acton & Maynard, . . . . .	704 28	-	208 00	-	-	-	-	-
31	Lowell & Fitchburg, . . . . .	14 00	25 30	736 82	-	-	1,366 77	-	42 55
32	Lowell & Pelham, . . . . .	-	206 13	358 24	-	-	-	-	-
33	Marlborough & Westborough, <sup>1</sup> . . . . .	-	173 43*	253 00	-	90 00	-	-	-
34	Martha's Vineyard, . . . . .	-	-	-	-	-	-	-	-
35	Medfield & Medway, . . . . .	-	50 75	351 97	-	-	-	-	-
36	Middlesex & Boston, . . . . .	-	5,062 23	7,949 55	-	2,926 85	-	8,696 47	819 39
37	Milford, Attleborough & Woonsocket, . . . . .	935 89	143 39	1,707 42	-	4,416 36	-	14,384 92	1,101 99
38	Milford & Uxbridge, . . . . .	-	305 12	-	-	8,468 13	-	25,871 13	1,322 72
39	Mount Tom, . . . . .	-	-	-	-	-	-	-	-
40	Nahant & Lynn, . . . . .	-	1,349 15	-	-	-	-	-	-

<sup>1</sup> Operations to November 1, 1910, when consolidated with the Union.<sup>2</sup> Operations to May 31, 1911, when consolidated with the Worcester Consolidated.

\* Credit.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

		OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1911 — Continued.						
		RAILWAY COMPANIES.						
		57. — Rent of Equipment.	58. — Traffic Expenses.	59. — Superintendence of Transportation.	60. — Power Plant Employees.	61. — Substation Employees.	62. — Fuel for Power.	63. — Other Power Supplies and Expenses.
41	New Bedford & Onset, . . . . .	—	\$278 87	\$1,874 54	\$6,176 45	—	\$14,185 91	\$1,982 83
42	Newtonville & Watertown, . . . . .	—	—	—	—	—	—	—
43	Norfolk & Bristol, . . . . .	—	—	—	3,795 76	—	13,043 89	1,174 76
44	Northampton, . . . . .	—	85 38	—	6,734 00	—	19,444 26	971 76
45	North End, . . . . .	—	—	—	—	—	—	—
46	Norton & Taunton, . . . . .	—	—	137 86	3,435 89	—	7,392 16	194 88
47	Norwood, Canton & Sharon, . . . . .	—	—	—	—	—	—	—
48	Oak Bluffs, . . . . .	—	—	—	—	—	—	—
49	Old Colony, . . . . .	\$2,345 54	51,389 04	44,438 84	34,383 98	\$14,758 98	165,209 80	13,119 65
50	Plymouth & Sandwich, . . . . .	—	—	—	—	—	—	—
51	Point Shirley, . . . . .	—	—	—	—	—	942 20	235 60
52	Providence & Fall River, . . . . .	312 96	—	—	—	—	—	—
53	Shelburne Falls & Colrain, . . . . .	—	—	—	1,284 10	—	2,073 37	—
54	Somerville, . . . . .	—	—	—	—	—	—	—
55	Springfield, . . . . .	8,629 87	8,594 54	17,125 76	24,178 41	—	153,778 36	7,147 53
56	Springfield & Eastern, . . . . .	—	—	—	—	—	—	—
57	Taunton & Pawtucket, . . . . .	—	150 59	—	3,489 25	—	9,517 08	345 64
58	Templeton, . . . . .	—	—	520 00	3,205 08	—	7,820 88	1,285 17

59	Union, . . . . .	9,453 34	1,981 47	15,880 57	12,025 57	-	29,864 35	3,833 46
60	Ware & Brookfield, . . . . .	-	-	-	3,748 95	-	7,533 51	125 11
61	Warren, Brookfield & Spencer, . . . . .	-	-	600 00	3,363 36	-	6,593 65	333 95
62	Webster & Dudley, . . . . .	-	-	-	-	-	-	-
63	West End, . . . . .	-	-	-	-	-	-	-
64	Winnisimmet, . . . . .	-	-	-	-	-	-	-
65	Worcester & Blackstone Valley, <sup>1</sup> . . . . .	1,100 00	231 44	3,347 14	5,559 54	-	29,295 61	1,199 73
66	Worcester Consolidated, . . . . .	6,762 44	5,743 43	27,490 42	43,275 17	3,817 03	155,696 28	11,841 38
67	Worcester & Holden, <sup>1</sup> . . . . .	-	-	-	-	-	-	-
68	Worcester & Providence, . . . . .	-	-	-	-	-	-	-
69	Worcester & Shrewsbury R.R., . . . . .	-	-	-	-	-	-	-
70	Worcester & Shrewsbury St. Ry., . . . . .	-	-	-	-	-	-	-
71	Worcester & Southbridge, <sup>1</sup> . . . . .	1,162 27	1,365 19	4,592 79	7,792 56	3,445 71	27,742 82	1,300 84
72	Worcester & Webster, . . . . .	-	-	-	-	-	-	-
Totals, . . . . .		\$60,884 37	\$260,869 84	\$522,858 77	\$609,835 40	\$37,651 38	\$2,112,942 05	\$214,572 64

<sup>1</sup> Operations to May 31, 1911, when consolidated with the Worcester Consolidated.





19	East Taunton, . . . . .	8,153 78	-	-	8,223 11	-	28,648 50
20	Fitchburg & Leominster, . . . . .	-	-	-	57,786 49	10,328 43	191,916 16
21	Gardner, Westminster & Fitchburg, . . . . .	-	-	-	12,462 15	4,863 29	48,404 51
22	Haverhill & Amesbury, . . . . .	21,939 58	-	-	23,559 51	4,770 82	101,381 69
23	Haverhill & Plaistow, . . . . .	4,093 25	-	-	2,439 66	679 90	12,180 46
24	Haverhill & Southern New Hampshire, . . . . .	16,203 25	-	-	9,939 23	2,493 11	50,191 53
25	Holyoke, . . . . .	-	-	-	117,056 22	23,830 69	396,973 34
26	Interstate Consolidated, . . . . .	41,820 45	-	-	37,073 63	2,637 12	142,275 33
27	Lawrence & Methuen, . . . . .	24,544 45	-	-	15,000 19	4,119 97	83,422 65
28	Lexington & Boston, . . . . .	1,044 14	-	-	31,551 09	9,516 45	131,878 91
29	Linwood, . . . . .	3,020 06	-	-	6,680 05	-	14,206 93
30	Lowell, Acton & Maynard, . . . . .	2,104 00	-	-	2,828 00	-	7,183 99
31	Lowell & Fitchburg, . . . . .	12,963 10	-	-	7,496 35	1,358 36	38,015 67
32	Lowell & Pelham, . . . . .	3,499 54	-	-	2,172 31	537 13	12,514 08
33	Marlborough & Westborough, <sup>2</sup> . . . . .	4,243 91	-	-	6,737 20	198 30	22,958 54
34	Martha's Vineyard, . . . . .	-	-	-	-	-	-
35	Medfield & Medway, . . . . .	5,475 00	-	-	5,616 00	3,056 05	19,989 72
36	Middlesex & Boston, . . . . .	110,301 66	-	-	132,736 79	40,851 09	471,882 64
37	Milford, Attleborough & Woonsocket, . . . . .	-	-	-	18,354 42	2,287 80	74,409 67
38	Milford & Uxbridge, . . . . .	50 52	-	-	42,691 19	6,063 60	143,740 36
39	Mount Tom, . . . . .	-	-	-	-	-	-
40	Nahant & Lynn, . . . . .	6,257 78	-	-	7,988 32	689 35	35,553 61

<sup>1</sup> Operations to November 1, 1910, when consolidated with the Union.<sup>2</sup> Operations to May 31, 1911, when consolidated with the Worcester Consolidated.

\* Credit.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

RAILWAY COMPANIES.		OPERATING EXPENSES FOR THE YEAR ENDING JUNE 30, 1911 — Concluded.						
		64. — Power Purchased.	65. — Power Exchanged — Balance.	66. — Other Op- erations — Dr.	67. — Other Op- erations — Cr.	68. — Con- ductors, Motor- men and Train- men.	69. — Miscel- laneous Trans- portation Ex- penses.	70. — Total Operating Ex- penses.
41	New Bedford & Onset,	\$2,515 67	-	-	\$4,716 24	\$18,400 74	\$12,551 27	\$88,555 82
42	Newtonville & Watertown,	-	-	-	-	-	-	-
43	Norfolk & Bristol,	555 29	-	-	-	19,808 99	2,588 70	68,814 11
44	Northampton,	-	-	-	-	35,395 92	4,560 86	144,732 83
45	North End,	-	-	-	-	-	-	-
46	Norton & Taunton,	-	-	-	-	12,404 00	1,972 55	47,708 65
47	Norwood, Canton & Sharon,	3,516 64	-	-	-	4,107 79	279 34	11,430 76
48	Oak Bluffs,	2,187 00	-	-	-	1,205 89	50 00	5,295 00
49	Old Colony,	66,492 60	\$1 75	\$5,572 34	-	647,221 94	157,160 58	2,075,876 25
50	Plymouth & Sandwich,	2,199 92	-	-	-	2,450 70	1,334 67	8,274 27
51	Point Shirley,	114 57	-	-	-	2,709 00	178 38	5,752 00
52	Providence & Fall River,	15,228 77	-	-	-	10,113 96	1,305 56	45,740 91
53	Shelburne Falls & Colrain,	-	-	-	-	3,212 39	975 65	17,931 73
54	Somerville,	-	-	-	-	-	-	-
55	Springfield,	42,190 30	-	-	-	412,681 78	52,028 60	1,233,680 28
56	Springfield & Eastern,	-	-	-	-	-	-	-
57	Taunton & Pawtucket,	-	-	-	-	9,142 23	1,723 88	48,985 33
58	Templeton,	-	-	-	-	10,391 96	763 56	45,824 47

59	Union, . . . . .	-	2,494 42	-	-	143,306 14	42,034 84	434,413 89
60	Ware & Brookfield, . . . . .	-	-	-	-	7,669 80	2,120 98	31,680 04
61	Warren, Brookfield & Spencer, . . . . .	-	-	-	-	14,753 73	144 60	43,688 45
62	Webster & Dudley, . . . . .	-	-	-	-	-	-	-
63	West End, . . . . .	-	-	-	-	-	-	-
64	Winnisimmet, . . . . .	-	-	-	-	-	-	-
65	Worcester & Blackstone Valley, <sup>1</sup> . . . . .	15,669 67	-	-	-	26,707 25	2,367 44	129,968 31
66	Worcester Consolidated, . . . . .	40,298 90	-	-	-	351,512 83	47,373 87	1,240,453 88
67	Worcester & Holden, <sup>1</sup> . . . . .	6,901 50	-	-	-	6,070 72	149 11	18,484 86
68	Worcester & Providence, . . . . .	-	-	-	-	-	-	-
69	Worcester & Shrewsbury R.R., . . . . .	-	-	-	-	-	-	-
70	Worcester & Shrewsbury St. Ry., . . . . .	-	-	-	-	-	-	-
71	Worcester & Southbridge, <sup>1</sup> . . . . .	1,842 40	-	-	-	49,321 50	8,077 89	176,348 88
72	Worcester & Webster, . . . . .	-	-	-	-	-	-	-
	Totals, . . . . .	\$595,624 60	\$11,431 88*	\$5,572 34	\$4,716 24	\$7,023,151 22	\$1,591,742 23	\$22,895,803 50

<sup>1</sup> Operations to May 31, 1911, when consolidated with the Worcester Consolidated.

\* Credit.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

EXHIBIT FOR THE YEAR ENDING JUNE 30, 1911.

RAILWAY COMPANIES.		EXHIBIT FOR THE YEAR ENDING JUNE 30, 1911.						
		71. — Operating Revenues.	72. — Operating Expenses.	73. — Percentage of Operating Expenses to Operating Revenues.	74. — Net Operating Revenue.	75. — Gross Income from Lease of Road.	76. — Total.	77. — Salaries and Maintenance of Organization.
1	Amesbury & Hampton, . . . . .	\$24,728 13	\$22,736 54	91.94	\$1,991 59	—	\$1,991 59	—
2	Athol & Orange, . . . . .	45,220 22	31,173 57	68.94	14,046 65	—	14,046 65	—
3	Berkshire, . . . . .	761,782 09	556,650 27	73.07	205,125 82	—	205,125 82	—
4	Blue Hill, . . . . .	92,817 43	58,534 30	63.06	34,283 13	—	34,283 13	—
5	Boston & Chelsea, . . . . .	—	—	—	—	\$7,560 00	7,560 00	\$300 00
6	Boston Elevated, . . . . .	15,635,965 56	10,119,004 32	64.72	5,516,901 24	—	5,516,901 24	—
7	Boston & Northern, . . . . .	5,314,391 46	3,351,977 50	63.07	1,962,413 96	—	1,962,413 96	—
8	Boston & Revere Electric, . . . . .	—	—	—	—	2,500 00	2,500 00	—
9	Boston & Worcester, . . . . .	613,971 55	355,855 00	57.96	258,116 55	—	258,116 55	—
10	Bristol & Norfolk, . . . . .	14,733 55	13,432 98	91.17	1,300 57	—	1,300 57	—
11	Brockton & Plymouth, . . . . .	120,409 53	84,363 53	70.09	36,016 00	—	36,016 00	—
12	Citizens' Electric, . . . . .	108,901 78	73,469 66	67.46	35,432 12	—	35,432 12	—
13	Concord, Maynard & Hudson, . . . . .	63,494 39	38,823 37	61.14	24,671 02	—	24,671 02	—
14	Connecticut Valley, . . . . .	208,273 15	140,100 06	67.27	68,173 09	—	68,173 09	—
15	Conway Electric, . . . . .	18,051 25	11,131 67	61.67	6,919 58	—	6,919 58	—
16	Dartmouth & Westport, . . . . .	107,583 28	64,701 53	60.14	42,881 75	—	42,881 75	—
17	Dedham & Franklin, . . . . .	27,516 00	21,784 19	79.16	5,731 81	—	5,731 81	—
18	East Middlesex, . . . . .	—	—	—	—	30,658 69	30,658 69	658 69

19	East Taunton, . . . . .	45,152 00	28,648 50	63.45	16,503 50	16,503 50
20	Fitchburg & Leominster, . . . . .	305,607 87	191,916 16	62.80	113,691 71	113,691 71
21	Gardner, Westminster & Fitchburg, . . . . .	73,395 15	48,404 51	65.95	24,990 64	24,990 64
22	Haverhill & Amesbury, . . . . .	155,637 39	101,381 69	65.14	54,255 70	54,255 70
23	Haverhill & Plaistow, . . . . .	20,212 70	12,180 46	60.26	8,032 24	8,032 24
24	Haverhill & Southern New Hampshire, . . . . .	64,317 66	50,191 53	78.04	14,126 13	14,126 13
25	Holyoke, . . . . .	557,415 21	396,973 34	71.22	160,441 87	160,441 87
26	Interstate Consolidated, . . . . .	179,408 21	142,275 33	79.30	37,132 88	37,132 88
27	Lawrence & Methuen, . . . . .	109,701 25	83,422 65	76.04	26,278 60	26,278 60
28	Lexington & Boston, . . . . .	161,727 90	131,878 91	81.54	29,848 99	29,848 99
29	Linwood, . . . . .	19,388 64	14,206 93	73.27	5,181 71	5,181 71
30	Lowell, Acton & Maynard, . . . . .	8,813 47	7,183 99	81.51	1,629 48	1,629 48
31	Lowell & Fitchburg, . . . . .	53,005 77	38,615 67	72.85	14,390 10	14,390 10
32	Lowell & Pelham, . . . . .	10,331 95	12,514 08	121.12	2,182 13d	2,182 13d
33	Marlborough & Westborough, . . . . .	38,679 91	22,958 54	59.36	15,721 37	15,721 37
34	Martha's Vineyard, . . . . .	-	-	-	420 00	420 00
35	Medfield & Medway, . . . . .	19,149 54	19,989 72	104.38	840 18d	840 18d
36	Middlesex & Boston, . . . . .	701,124 78	471,882 64	67.30	229,242 14	229,242 14
37	Milford, Attleborough & Woonsocket, . . . . .	107,106 30	74,409 67	69.47	32,696 63	32,696 63
38	Milford & Uxbridge, . . . . .	211,852 56	143,740 36	67.84	68,112 20	68,112 20
39	Mount Tom, . . . . .	-	-	-	6,000 00	6,000 00
40	Nahant & Lynn, . . . . .	63,448 36	35,553 61	56.03	27,894 75	27,894 75

d Deficit.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

EXHIBIT FOR THE YEAR ENDING JUNE 30, 1911 — Continued.

RAILWAY COMPANIES.		71. — Operating Revenues.	72. — Operating Expenses.	73. — Percentage of Operating Expenses to Operating Revenues.	74. — Net Operating Revenue.	75. — Gross Income from Lease of Road.	76. — Total.	77. — Salaries and Maintenance of Organization.
41	New Bedford & Onset, . . . . .	\$135,507 98	\$88,555 82	65.35	\$46,952 16	—	\$46,952 16	—
42	Newtonville & Watertown, . . . . .	—	—	—	—	\$8,311 00	8,311 00	\$130 00
43	Norfolk & Bristol, . . . . .	91,527 16	68,814 11	75.18	22,713 05	—	22,713 05	—
44	Northampton, . . . . .	190,705 50	144,732 83	75.89	45,972 67	—	45,972 67	—
45	North End, . . . . .	—	—	—	—	8,000 00	8,000 00	61 74
46	Norton & Taunton, . . . . .	61,568 12	47,708 65	77.49	13,859 47	—	13,859 47	—
47	Norwood, Canton & Sharon, . . . . .	10,089 54	11,430 76	113.29	1,341 22d	—	1,341 22d	—
48	Oak Bluffs, . . . . .	5,847 76	5,295 00	90.55	552 76	—	552 76	—
49	Old Colony, . . . . .	3,223,460 85	2,075,876 25	64.40	1,147,584 60	—	1,147,584 60	—
50	Plymouth & Sandwich, . . . . .	9,445 90	8,274 27	87.60	1,171 63	—	1,171 63	—
51	Point Shirley, . . . . .	4,626 00	5,752 00	124.34	1,126 00d	—	1,126 00d	—
52	Providence & Fall River, . . . . .	54,462 93	45,740 91	83.98	8,722 02	—	8,722 02	—
53	Shelburne Falls & Colrain, . . . . .	28,205 16	17,931 73	63.57	10,273 43	—	10,273 43	—
54	Somerville, . . . . .	—	—	—	—	9,180 00	9,180 00	—
55	Springfield, . . . . .	1,789,900 96	1,233,680 28	68.92	556,220 68	—	556,220 68	—
56	Springfield & Eastern, . . . . .	—	—	—	—	7,609 02	7,609 02	—
57	Taunton & Pawtucket, . . . . .	50,715 37	48,985 33	96.58	1,730 04	—	1,730 04	—
58	Templeton, . . . . .	51,195 72	45,824 47	89.51	5,371 25	—	5,371 25	—

59	Union, . . . . .	770,385 30	434,413 89	56.39	335,971 41	335,971 41	-
60	Ware & Brookfield, . . . . .	31,184 17	31,680 04	101.59	495 87 <i>d</i>	495 87 <i>d</i>	-
61	Warren, Brookfield & Spencer, . . . . .	58,433 69	43,688 45	74.76	14,745 24	14,745 24	-
62	Webster & Dudley, . . . . .	-	-	-	-	14,500 00	-
63	West End, . . . . .	-	-	-	-	8,500 00	8,087 40
64	Winnisimmet, . . . . .	-	-	-	-	3,000 00	-
65	Worcester & Blackstone Valley, . . . . .	182,190 13	120,968 31	71.34	52,221 82	52,221 82	-
66	Worcester Consolidated, . . . . .	1,918,437 86	1,240,453 88	64.66	677,983 98	677,983 98	-
67	Worcester & Holden, . . . . .	40,253 22	18,484 86	45.92	21,768 36	21,768 36	-
68	Worcester & Providence, . . . . .	-	-	-	-	-	-
69	Worcester & Shrewsbury R.R., . . . . .	-	-	-	-	2,650 00	-
70	Worcester & Shrewsbury St. Ry., . . . . .	-	-	-	-	1,000 00	-
71	Worcester & Southbridge, . . . . .	265,537 38	176,348 88	66.41	89,188 50	89,188 50	-
72	Worcester & Webster, . . . . .	-	-	-	-	10,500 00	-
Totals, . . . . .		\$35,036,996 69	\$22,895,803 50	65.34	\$12,141,193 19	\$12,261,581 90	\$9,537 83

*d* Deficit.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

EXHIBIT FOR THE YEAR ENDING JUNE 30, 1911 — Continued.								
RAILWAY COMPANIES.								
		78. — Operating Income.	79. — Miscel- laneous Income.	80. — Gross Income.	81. — Taxes.	82. — Interest on Funded Debt.	83. — Interest on Unfunded Debt.	84. — Rents of Leased Lines.
1	Amesbury & Hampton,	\$1,991 59	\$351 10	\$2,342 69	\$436 71	\$5,000 00	\$3,500 00	—
2	Athol & Orange,	14,046 65	—	14,046 65	2,499 99	3,000 00	219 59	—
3	Berkshire,	205,125 82	1,163 03	206,288 85	37,670 71	79,000 00	33,523 54	—
4	Blue Hill,	34,283 13	29 95	34,313 08	3,000 00	12,500 00	10,045 50	—
5	Boston & Chelsea,	7,260 00	45 20	7,305 20	45 20	—	—	—
6	Boston Elevated,	5,516,901 24	344,742 38	5,861,643 62	1,344,832 77	1,272,180 00	—	\$1,427,082 64
7	Boston & Northern,	1,962,413 96	12,277 25	1,974,691 21	321,288 29	533,306 12	130,607 03	121,920 30
8	Boston & Revere Electric,	2,500 00	—	2,500 00	—	—	—	—
9	Boston & Worcester,	258,116 55	1,715 08	259,831 63	42,559 98	104,700 00	18,104 83	—
10	Bristol & Norfolk,	1,300 57	—	1,300 57	286 72	3,500 00	—	—
11	Brockton & Plymouth,	36,016 00	291 59	36,307 59	5,479 69	11,700 00	1,663 19	—
12	Citizens' Electric,	35,432 12	—	35,432 12	6,342 45	11,500 00	2,384 88	—
13	Concord, Maynard & Hudson,	24,671 02	79 35	24,750 37	2,126 74	10,000 00	1,792 49	—
14	Connecticut Valley,	68,173 09	—	68,173 09	8,749 98	28,333 34	2,944 41	—
15	Conway Electric,	6,919 58	—	6,919 58	552 35	4,650 00	1,717 23	—
16	Dartmouth & Westport,	42,881 75	4,996 89	47,878 64	4,110 65	1,125 00	—	—
17	Dedham & Franklin,	5,731 81	—	5,731 81	429 68	5,000 00	678 24	—
18	East Middlesex,	30,000 00	571 88	30,571 88	501 29	—	—	—



19	East Taunton, . . . . .	16,503 50	470 54	16,974 04	2,495 98	2,250 00	-	-
20	Fitchburg & Leominster, . . . . .	113,691 71	558 58	114,250 29	16,576 70	19,250 00	36,361 89	-
21	Gardner, Westminster & Fitchburg, . . . . .	24,990 64	-	24,990 64	2,780 00	9,250 00	303 33	-
22	Haverhill & Amesbury, . . . . .	54,255 70	57 05	54,312 75	3,120 00	26,500 00	85 00	-
23	Haverhill & Plaistow, . . . . .	8,032 24	-	8,032 24	670 11	1,500 00	-	-
24	Haverhill & Southern New Hampshire, . . . . .	14,126 13	-	14,126 13	1,098 63	4,000 00	3,450 00	-
25	Holyoke, . . . . .	160,441 87	11,992 37	172,434 24	44,002 95	30,000 00	8,023 73	500 00
26	Interstate Consolidated, . . . . .	37,132 88	1,335 21	38,468 09	8,333 68	-	15,600 00	-
27	Lawrence & Methuen, . . . . .	26,278 60	166 72	26,445 32	2,437 08	6,250 00	2,650 00	-
28	Lexington & Boston, . . . . .	29,848 99	77 77	29,926 76	5,418 89	22,500 00	14,919 17	-
29	Liuwood, . . . . .	5,181 71	-	5,181 71	719 71	-	300 00	-
30	Lowell, Acton & Maynard, . . . . .	1,629 48	-	1,629 48	182 12	-	2,608 35	-
31	Lowell & Fitchburg, . . . . .	14,390 10	64 78	14,454 88	905 13	13,750 00	1,232 89	-
32	Lowell & Pelham, . . . . .	2,182 13d	-	2,182 13d	96 00	2,000 00	1,450 00	-
33	Marlborough & Westborough, . . . . .	15,721 37	171 49	15,892 86	1,804 99	7,333 34	4,653 00	-
34	Martha's Vineyard, . . . . .	420 00	-	420 00	-	-	-	-
35	Medfield & Medway, . . . . .	840 18d	-	840 18d	189 21	5,000 00	2,363 76	-
36	Middlesex & Boston, . . . . .	229,242 14	365 15	229,607 29	22,799 11	50,750 00	82,661 99	-
37	Milford, Attleborough & Woonsocket, . . . . .	32,696 63	602 25	33,298 88	5,691 41	12,500 00	3,300 00	-
38	Milford & Uxbridge, . . . . .	68,112 20	-	68,112 20	8,350 75	23,937 50	4,592 37	-
39	Mount Tom, . . . . .	6,000 00	190 91	6,190 91	-	-	-	-
40	Nahant & Lynn, . . . . .	27,894 75	-	27,894 75	2,386 43	5,000 00	198 33	-

d Deficit.

## Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		EXHIBIT FOR THE YEAR ENDING JUNE 30, 1911 — Continued.						
		78. — Operating Income.	79. — Miscellaneous Income.	80. — Gross Income.	81. — Taxes.	82. — Interest on Funded Debt.	83. — Interest on Unfunded Debt.	84. — Rents of Leased Lines.
41	New Bedford & Onset,	\$46,952 16	—	\$46,952 16	\$6,506 43	\$14,000 00	—	—
42	Newtonville & Watertown,	7,881 00	—	7,881 00	1,232 00	—	\$2,535 12	—
43	Norfolk & Bristol,	22,713 05	\$59 77	22,772 82	1,160 23	10,000 00	—	—
44	Northampton,	45,972 67	129 91	46,102 58	10,516 06	10,000 00	7,369 72	—
45	North End,	7,938 26	17 64	7,955 90	—	3,750 00	—	—
46	Norton & Taunton,	13,859 47	—	13,859 47	1,532 09	14,800 00	1,343 93	—
47	Norwood, Canton & Sharon,	1,341 22 <i>d</i>	—	1,341 22 <i>d</i>	232 91	—	—	—
48	Oak Bluffs,	552 76	—	552 76	228 76	—	2 08	—
49	Old Colony,	1,147,584 60	155,091 58	1,302,676 18	203,695 64	365,272 56	42,945 78	\$96,190 67
50	Plymouth & Sandwich,	1,171 63	—	1,171 63	583 93	—	450 17	—
51	Point Shirley,	1,126 00 <i>d</i>	—	1,126 00 <i>d</i>	9 00	—	—	—
52	Providence & Fall River,	8,722 02	—	8,722 02	1,503 12	8,250 00	4,097 08	—
53	Shelburne Falls & Colrain,	10,273 43	—	10,273 43	317 97	3,892 50	1,276 02	—
54	Somerville,	9,180 00	—	9,180 00	—	—	—	—
55	Springfield,	556,220 68	1,542 34	557,763 02	168,067 00	83,375 00	45,881 82	7,609 02
56	Springfield & Eastern,	7,609 02	—	7,609 02	—	6,875 00	734 02	—
57	Taunton & Pawtucket,	1,730 04	78 10	1,808 14	1,483 67	10,000 00	—	—
58	Templeton,	5,371 25	266 83	5,638 08	870 28	7,750 00	10,453 18	—

59	Union, . . . . .	335,971 41	1,778 20	337,749 61	74,620 54	25,000 00	-	-
60	Ware & Brookfield, . . . . .	495 87d	11 33	484 54d	578 35	6,750 00	-	-
61	Warren, Brookfield & Speneer, . . . . .	14,745 24	-	14,745 24	2,015 69	6,250 00	3,003 87	-
62	Webster & Dudley, . . . . .	14,500 00	-	14,500 00	-	1,500 00	-	10,500 00
63	West End, . . . . .	412 60	1,339,150 44	1,339,563 04	-	-	-	-
64	Winnimmet, . . . . .	3,000 00	-	3,000 00	-	-	-	-
65	Worcester & Blackstone Valley, . . . . .	52,221 82	420 35	52,642 17	11,994 26	13,750 00	8,468 34	-
66	Worcester Consolidated, . . . . .	677,983 98	3,538 99	681,522 97	150,140 42	142,931 32	52,730 69	14,295 84
67	Worcester & Holden, . . . . .	21,768 36	349 64	22,118 00	1,739 38	6,783 34	3,575 00	-
68	Worcester & Providence, . . . . .	-	-	-	-	-	-	-
69	Worcester & Shrewsbury R.R., . . . . .	2,650 00	1,100 00	3,750 00	-	1,100 00	-	-
70	Worcester & Shrewsbury St. Ry., . . . . .	1,000 00	-	1,000 00	-	-	-	-
71	Worcester & Southbridge, . . . . .	89,188 50	787 96	89,976 46	14,686 61	28,875 00	593 33	13,291 66
72	Worcester & Webster, . . . . .	10,500 00	-	10,500 00	-	7,500 00	-	-
	Totals, . . . . .	\$12,252,044 07	\$1,886,639 60	\$14,138,683 67	\$2,404,686 42	\$3,105,670 02	\$577,424 89	\$1,691,390 13

d Deficit.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

EXHIBIT FOR THE YEAR ENDING JUNE 30, 1911 — Continued.									
RAILWAY COMPANIES.									
		85. — Other Deductions.	86. — Reserves and Special Charges.	87. — Total Deductions.	88. — Net Divisible Income.	89. — Dividends Declared.	90. — Percentage of Dividends Declared.	91. — Surplus for the Year.	
1	Amesbury & Hampton,	—	\$6,558 00	\$15,494 71	\$13,152 02 <sup>d</sup>	—	—	—	
2	Athol & Orange,	—	—	5,719 58	8,327 07	\$5,215 00	7	\$3,112 07	
3	Berkshire,	—	—	150,194 25	56,094 60	38,962 00	2	17,132 60	
4	Blue Hill,	—	—	25,545 50	8,767 58	—	—	8,767 58	
5	Boston & Chelsea,	—	—	45 20	7,260 00	7,260 00	6	—	
6	Boston Elevated,	\$567,087 45	—	4,511,182 86	1,350,460 76	1,197,000 00	6	153,460 76	
7	Boston & Northern,	3,995 00	—	1,111,116 74	863,574 47	630,874 00	5 and 6 <sup>1</sup>	232,700 47	
8	Boston & Revere Electric,	—	—	—	2,500 00	2,500 00	5	—	
9	Boston & Worcester,	—	—	165,364 81	94,466 82	—	—	94,466 82	
10	Bristol & Norfolk,	233 24	—	4,019 96	2,719 39 <sup>d</sup>	—	—	—	
11	Brockton & Plymouth,	—	—	18,842 88	17,464 71	6,600 00	6 <sup>2</sup>	10,864 71	
12	Citizens' Electric,	—	—	20,227 33	15,204 79	12,000 00	5	3,204 79	
13	Concord, Maynard & Hudson,	—	—	13,919 23	10,831 14	2,000 00	1	8,831 14	
14	Connecticut Valley,	—	—	40,027 73	28,145 36	6,045 00	6 <sup>3</sup>	22,100 36	
15	Conway Electric,	—	—	6,919 58	—	—	—	—	
16	Dartmouth & Westport,	7,805 21	—	13,040 86	34,837 78	20,000 00	4	14,837 78	
17	Dedham & Franklin,	—	—	6,107 92	376 11 <sup>d</sup>	—	—	—	
18	East Middlesex,	—	—	501 29	30,070 59	29,770 00	10	300 59	

19	East Taunton,	.	.	.	.	6,825 13	11,571 11	5,402 93	5,500 00	5	-
20	Fitchburg & Leominster,	.	.	.	.	-	72,188 59	42,061 70	27,000 00	6	15,061 70
21	Gardner, Westminster & Fitchburg,	.	.	.	.	-	12,333 33	12,657 31	9,250 00	5	3,407 31
22	Haverhill & Amesbury,	.	.	.	.	25,700 00	55,405 00	1,092 25 <sup>d</sup>	-	-	-
23	Haverhill & Plaistow,	.	.	.	.	4,300 00	6,470 11	1,562 13	-	-	1,562 13
24	Haverhill & Southern New Hampshire,	.	.	.	.	12,400 00	20,948 63	6,822 50 <sup>d</sup>	-	-	-
25	Holyoke,	.	.	.	.	-	82,526 68	89,907 56	85,888 00	8	4,019 56
26	Interstate Consolidated,	.	.	.	.	-	23,933 68	14,534 41	11,000 00	4	3,534 41
27	Lawrence & Methuen,	.	.	.	.	21,200 00	32,537 08	6,091 76 <sup>d</sup>	-	-	-
28	Lexington & Boston,	.	.	.	.	-	42,868 06	12,941 30 <sup>d</sup>	-	-	-
29	Linwood,	.	.	.	.	-	1,019 71	4,162 00	720 00	6	3,442 00
30	Lowell, Acton & Maynard,	.	.	.	.	-	2,790 47	1,160 99 <sup>d</sup>	-	-	-
31	Lowell & Fitchburg,	.	.	.	.	-	15,888 02	1,433 14 <sup>d</sup>	-	-	-
32	Lowell & Pelham,	.	.	.	.	2,100 00	5,646 00	7,828 13 <sup>d</sup>	-	-	-
33	Marlborough & Westborough,	.	.	.	.	224 86	14,016 19	1,876 67	-	-	1,876 67
34	Martha's Vineyard,	.	.	.	.	-	-	420 00	400 00	5	20 00
35	Medfield & Medway,	.	.	.	.	-	7,552 97	8,393 15 <sup>d</sup>	-	-	-
36	Middlesex & Boston,	.	.	.	.	-	156,211 10	73,396 19	73,100 00	5	296 19
37	Millford, Attleborough & Woonsocket,	.	.	.	.	-	21,491 41	11,807 47	9,450 00	3	2,357 47
38	Millford & Uxbridge,	.	.	.	.	1,229 96	38,110 58	30,001 62	29,920 00	6 and 4 <sup>4</sup>	81 62
39	Mount Tom,	.	.	.	.	-	-	6,190 91	6,000 00	6	190 91
40	Nahant & Lynn,	.	.	.	.	2,500 00	10,084 76	17,809 99	6,000 00	6	11,809 99

<sup>1</sup> Five per cent on \$11,043,200 common, and six per cent on \$1,311,900 preferred capital stock.

<sup>2</sup> Six per cent on \$110,000 preferred capital stock.

<sup>3</sup> Three per cent on \$81,500 and three per cent on \$120,000 preferred capital stock.

<sup>4</sup> Six per cent on \$440,000 common, and four per cent on \$88,000 preferred capital stock.

<sup>d</sup> Deficit.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

RAILWAY COMPANIES.		EXHIBIT FOR THE YEAR ENDING JUNE 30, 1911 — Continued.						
		85. — Other Deductions.	86. — Reserves and Special Charges.	87. — Total Deductions.	88. — Net Divisible Income.	89. — Dividends Declared.	90. — Percentage of Dividends Declared.	91. — Surplus for the Year.
41	New Bedford & Onset,	\$6,000 00	—	\$20,506 43	\$20,445 73	\$16,500 00	3	\$3,945 73
42	Newtonville & Watertown,	—	—	3,767 12	4,113 88	3,600 00	7 <sup>20</sup> / <sub>100</sub>	513 88
43	Norfolk & Bristol,	—	—	11,160 23	11,612 59	—	—	11,612 59
44	Northampton,	—	—	27,885 78	18,216 80	18,000 00	4 <sup>1</sup> / <sub>2</sub>	216 80
45	North End,	—	—	3,750 00	4,205 90	4,125 00	3 <sup>1</sup> / <sub>2</sub>	80 90
46	Norton & Taunton,	—	—	17,676 02	3,816 55 <i>d</i>	—	—	—
47	Norwood, Canton & Sharon,	—	—	232 91	1,574 13 <i>d</i>	—	—	—
48	Oak Bluffs,	—	—	230 84	321 92	—	—	321 92
49	Old Colony,	3,838 63	—	711,943 28	590,732 90	518,091 00	6 and 6 <sup>2</sup> / <sub>3</sub>	72,641 90
50	Plymouth & Sandwich,	—	—	1,034 10	137 53	—	—	137 53
51	Point Shirley,	—	—	9 00	1,135 00 <i>d</i>	—	—	—
52	Providence & Fall River,	—	—	13,850 20	5,128 18 <i>d</i>	—	—	—
53	Shelburne Falls & Colrain,	—	—	5,486 49	4,786 94	1,250 00	2 <sup>1</sup> / <sub>2</sub>	3,536 94
54	Somerville,	—	—	—	9,180 00	9,180 00	6	—
55	Springfield,	—	—	304,932 84	252,830 18	259,567 00	7	—
56	Springfield & Eastern,	—	—	7,609 02	—	—	—	—
57	Taunton & Pawtucket,	—	—	11,483 67	9,675 53 <i>d</i>	—	—	—
58	Templeton,	—	—	19,073 46	13,435 38 <i>d</i>	—	—	—

59	Union, . . . . .	4,034 59	-	103,655 13	234,094 48	110,000 00	8 <sup>3</sup>	124,094 48
60	Ware & Brookfield, . . . . .	-	-	7,328 35	7,812 89 <sup>d</sup>	-	-	-
61	Warren, Brookfield & Spencer, . . . . .	1,000 42	\$2,500 00	14,769 98	24 74 <sup>d</sup>	-	-	-
62	Webster & Dudley, . . . . .	-	-	12,000 00	2,500 00	2,500 00	5	-
63	West End, . . . . .	-	-	-	1,339,563 04	1,339,060 50	7 and 8 <sup>4</sup>	502 54
64	Winuismmet, . . . . .	-	-	-	3,000 00	3,000 00	6	-
65	Worcester & Blackstone Valley, . . . . .	-	-	34,212 60	18,429 57	14,480 00	4	3,949 57
66	Worcester Consolidated, . . . . .	68,500 00	-	428,598 27	252,924 70	230,750 00	6 <sup>1</sup> 5	22,174 70
67	Worcester & Holden, . . . . .	-	-	12,097 72	10,020 28	6,000 00	4	4,020 28
68	Worcester & Providence, . . . . .	-	-	-	-	-	-	-
69	Worcester & Shrewsbury R.R., . . . . .	-	-	1,100 00	2,650 00	2,649 74	7 <sup>2</sup> 100	26
70	Worcester & Shrewsbury St. Ry, . . . . .	-	-	-	1,000 00	1,000 00	5	-
71	Worcester & Southbridge, . . . . .	-	-	57,446 60	32,529 86	26,700 00	3	5,829 86
72	Worcester & Webster, . . . . .	-	3,000 00	10,500 00	-	-	-	-
	Totals, . . . . .	\$670,774 49	\$80,258 00	\$8,590,203 95	\$5,548,479 72	\$4,788,907 24	5.52	\$871,019 51

<sup>1</sup> Four and one-half per cent on \$400,000 capital stock.<sup>2</sup> Three per cent on \$7,712,200 and three per cent on \$8,004,100 common and six per cent on \$76,790 preferred capital stock.<sup>3</sup> Four per cent on \$1,125,000 and four per cent on \$1,625,000 capital stock.<sup>4</sup> Eight per cent on preferred and three and one-half per cent on \$11,120,150 and three and one-half per cent on \$12,510,150 common capital stock.<sup>5</sup> Six and one-half per cent on \$3,550,000 capital stock.<sup>d</sup> Deficit.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

EXHIBIT FOR THE YEAR ENDING JUNE 30, 1911 — Continued.

RAILWAY COMPANIES.		EXHIBIT FOR THE YEAR ENDING JUNE 30, 1911 — Continued.						
		92. — Deficit for the Year.	93. — Surplus June 30, 1910.	94. — Deficit June 30, 1910.	95. — Credits.	96. — Debits.	97. — Surplus June 30, 1911.	98. — Deficit June 30, 1911.
1	Amesbury & Hampton,	\$13,152 02	—	\$59,914 58	—	—	—	\$73,066 60
2	Athol & Orange, .	—	\$16,672 46	—	\$19,722 40	\$34,139 42	\$5,367 51	—
3	Berkshire, . . .	—	67,225 78	—	1,482 57	56,652 21	29,188 74	—
4	Blue Hill, . . .	—	—	71,160 02	—	—	—	62,392 44
5	Boston & Chelsea,	—	—	—	—	—	—	—
6	Boston Elevated,	—	3,764,721 47	—	—	299,250 00	3,618,932 23 <sup>1</sup>	—
7	Boston & Northern,	—	278,714 07	—	7,326 46	232,950 00	285,791 00 <sup>2</sup>	—
8	Boston & Revere Electric,	—	10,071 02	—	—	—	10,071 02 <sup>3</sup>	—
9	Boston & Worcester,	—	—	37,649 69	29,700 00	10,040 88	76,476 25 <sup>4</sup>	—
10	Bristol & Norfolk,	2,719 39	—	35,267 96	—	—	—	37,987 35
11	Brockton & Plymouth,	—	15,703 10	—	—	—	26,567 81 <sup>5</sup>	—
12	Citizens' Electric,	—	44,406 06	—	—	1,576 51	46,034 34	—
13	Concord, Maynard & Hudson,	—	26,797 01	—	—	—	35,628 15	—
14	Connecticut Valley,	—	34,747 36	—	—	45,869 74	10,977 98	—
15	Conway Electric,	—	—	11,272 41	—	—	—	11,272 41
16	Dartmouth & Westport,	—	136,173 97	—	119,050 00	270,061 75	—	—
17	Dedham & Franklin,	376 11	—	17,900 79	—	—	—	18,276 90
18	East Middlesex, .	—	—	9,054 63	—	—	—	8,754 04



19	East Taunton, . . . . .	97 07	34,650 01	-	-	-	34,552 94	-
20	Fitchburg & Leominster, . . . . .	-	15,083 71	-	-	10,375 94	19,769 47	-
21	Gardner, Westminster & Fitchburg, . . . . .	-	21,078 50	-	75 00	3,425 00	21,135 81	-
22	Haverhill & Amesbury, . . . . .	1,092 25	-	124,363 38	-	-	-	125,455 63
23	Haverhill & Plaistow, . . . . .	-	23,388 59	-	-	-	24,950 72	-
24	Haverhill & Southern New Hampshire, . . . . .	6,822 50	-	31,097 48	-	-	-	37,919 98
25	Holyoke, . . . . .	-	114,908 82	-	-	-	118,928 38 <sup>e</sup>	-
26	Interstate Consolidated, . . . . .	-	2,166 52	-	-	38 44	5,662 49	-
27	Lawrence & Methuen, . . . . .	6,091 76	2,166 38	-	-	-	-	3,925 38
28	Lexington & Boston, . . . . .	12,941 30	-	31,407 12	-	567 96	-	44,916 38
29	Linwood, . . . . .	-	5,504 89	-	-	2,453 10	6,553 79	-
30	Lowell, Acton & Maynard, . . . . .	1,160 99	250 21	-	-	-	-	910 78
31	Lowell & Fitchburg, . . . . .	1,433 14	-	25,716 88	-	-	-	27,150 02
32	Lowell & Pelham, . . . . .	7,828 13	-	27,408 52	-	-	-	35,236 65
33	Marlborough & Westborough, . . . . .	-	-	25,837 23	23,994 94	34 38	-	-
34	Martha's Vineyard, . . . . .	-	400 00	-	-	-	420 00	-
35	Medfield & Medway, . . . . .	8,393 15	-	29,059 81	-	-	-	37,452 96
36	Middlesex & Boston, . . . . .	-	-	221,887 41	-	-	-	221,591 23
37	Milford, Attleborough & Woonsocket, . . . . .	-	25,300 38	-	-	2,385 84	25,272 01	-
38	Milford & Uxbridge, . . . . .	-	27,490 78	-	-	-	27,572 40	-
39	Mount Tom, . . . . .	-	1,136 03	-	-	-	1,326 94	-
40	Nahant & Lynn, . . . . .	-	35,086 18	-	-	13,553 14	33,343 03	-

<sup>1</sup> Includes \$2,705,273.09 net premium on sale of capital stock and bonds.<sup>2</sup> Includes \$160,605 premium on sale of preferred capital stock.<sup>3</sup> Includes \$1,000 premium on sale of bonds.<sup>4</sup> Includes \$29,700 premium on sale of preferred capital stock.<sup>5</sup> Includes \$115 premium on sale of preferred capital stock.<sup>6</sup> Includes \$23,400 premium on sale of capital stock.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

RAILWAY COMPANIES.		EXHIBIT FOR THE YEAR ENDING JUNE 30, 1911 — Concluded.						
		92. — Deficit for the Year.	93. — Surplus June 30, 1910.	94. — Deficit June 30, 1910.	95. — Credits.	96. — Debits.	97. — Surplus June 30, 1911.	98. — Deficit June 30, 1911.
41	New Bedford & Onset,	—	\$62,710 10	—	—	\$5,000 00	\$61,655 83 <sup>1</sup>	—
42	Newtonville & Watertown,	—	3,204 45	—	—	—	3,718 33	—
43	Norfolk & Bristol,	—	71,081 50	—	—	—	82,694 09	—
44	Northampton,	—	10,046 59	—	—	—	10,263 39 <sup>2</sup>	—
45	North End,	—	—	\$18,714 85	—	—	—	\$18,633 95
46	Norton & Taunton,	\$3,816 55	—	43,334 27	\$5,198 92	5,183 90	—	47,135 80
47	Norwood, Canton & Sharon,	1,574 13	—	66,389 18	—	—	—	67,963 31
48	Oak Bluffs,	—	—	911 90	239 28	—	—	350 70
49	Old Colony,	—	181,092 24	—	30,329 13	102,431 56	181,631 71 <sup>3</sup>	—
50	Plymouth & Sandwich,	—	4,919 60	—	—	1,000 00	4,057 13	—
51	Point Shirley,	1,135 00	—	—	—	—	—	1,135 00
52	Providence & Fall River,	5,128 18	—	34,482 58	—	—	—	39,610 76
53	Shelburne Falls & Colrain,	—	21,931 34	—	—	9,570 00	15,898 28	—
54	Somerville,	—	—	—	—	—	—	—
55	Springfield,	6,736 82	280,937 22	—	184,614 89	191,234 98	267,580 31 <sup>4</sup>	—
56	Springfield & Eastern,	—	—	—	—	—	—	—
57	Taunton & Pawtucket,	9,675 53	—	30,013 46	—	1 00	—	39,689 99
58	Templeton,	13,435 38	—	112,318 37	—	—	—	125,753 75

59	Union,	.	.	.	.	.	.	-	440,427 25	-	265,561 75	80,328 58	749,754 90 <sup>5</sup>	-
60	Ware & Brookfield,	.	.	.	.	.	.	7,812 80	-	35,854 33	-	-	-	43,667 22
61	Warren, Brookfield & Spencer,	.	.	.	.	.	.	24 74	22,577 99	-	-	2,780 01	19,773 24	-
62	Webster & Dudley,	.	.	.	.	.	.	-	-	22,860 08	-	-	-	22,860 08
63	West End,	.	.	.	.	.	.	-	1,585,359 71	-	710,640 37	-	2,296,502 62 <sup>6</sup>	-
64	Winnimmet,	.	.	.	.	.	.	-	124 85	-	-	-	124 85	-
65	Worcester & Blackstone Valley,	.	.	.	.	.	.	-	72,926 29	-	-	76,875 86	-	-
66	Worcester Consolidated,	.	.	.	.	.	.	-	261,837 07	-	349,905 31	267,245 33	366,671 75 <sup>7</sup>	-
67	Worcester & Holden,	.	.	.	.	.	.	-	229 71	-	-	4,249 99	-	-
68	Worcester & Providence,	.	.	.	.	.	.	-	-	-	-	-	-	-
69	Worcester & Shrewsbury R.R.,	.	.	.	.	.	.	-	64,694 07	-	-	-	64,694 33	-
70	Worcester & Shrewsbury St. Ry.,	.	.	.	.	.	.	-	22 05	-	-	-	22 05	-
71	Worcester & Southbridge,	.	.	.	.	.	.	-	31,819 15	-	-	37,649 01	-	72,672 58
72	Worcester & Webster,	.	.	.	.	.	.	-	-	-	-	-	-	-
	Totals,	.	.	.	.	.	.	\$111,447 03	\$7,819,844 48	\$1,196,549 51	\$1,747,841 02	\$1,766,924 53	\$8,589,565 82	\$1,225,781 88

<sup>1</sup> Includes \$17,675 premium on sale of bonds.<sup>2</sup> Includes \$10,000 premium on sale of capital stock.<sup>3</sup> Includes \$97,875 premium on sale of preferred capital stock.<sup>4</sup> Includes \$184,614.89 premium on sales of capital stock and bonds.<sup>5</sup> Includes \$549,670 premium on sales of capital stock and bonds.<sup>6</sup> Includes \$2,290,197.04 premium on sales of capital stock and bonds.<sup>7</sup> Includes \$232,432.92 premium on sales of capital stock and bonds.

Tabulated Statements from Returns of Street Railway Companies — Continued.

	RAILWAY COMPANIES.	DESCRIPTION OF RAILWAY (LENGTH IN MILES).						
		99. — Railway Line Owned.	100. — Second Main Track Owned.	101. — Total Main Track Owned.	102. — Sidings, Switches, etc., Owned.	103. — Total Track Owned.	104. — Leased Main Track and Trackage Rights.	105. — Total Main Track Operated.
1	Amesbury & Hampton,	8.340	—	8.340	.410	8.750	—	8.340
2	Athol & Orange,	6.720	—	6.720	.333	7.053	—	6.720
3	Berkshire,	106.032	1.050	107.082	4.799	111.881	—	107.082
4	Blue Hill,	15.360	2.950	18.310	1.180	19.490	.180	18.490
5	Boston & Chelsea,	2.176	2.176	4.352	.027	4.379	—	—
6	Boston Elevated,	12.677	12.128	24.805	10.072	34.877	407.564	429.957
7	Boston & Northern,	390.540	74.420	464.960	33.180	498.140	54.560	518.600
8	Boston & Revere Electric,	1.860	1.850	3.710	.180	3.890	—	—
9	Boston & Worcester,	48.935	30.575	79.510	2.612	82.122	.592	80.102
10	Bristol & Norfolk,	6.195	—	6.195	.123	6.318	.378	6.573
11	Brockton & Plymouth,	22.050	—	22.050	2.260	24.310	.430	22.480
12	Citizens' Electric,	16.863	—	16.863	.983	17.846	.568	17.431
13	Concord, Maynard & Hudson,	14.215	—	14.215	.780	14.995	.350	14.565
14	Connecticut Valley,	44.867	—	44.867	2.237	47.104	—	44.867
15	Conway Electric,	5.910	—	5.910	.590	6.500	—	5.910
16	Dartmouth & Westport,*	9.310	9.117	18.427	.458	18.885	12.174	30.601
17	Dedham & Franklin,	9.079	—	9.079	.371	9.450	—	9.079
18	East Middlesex,	16.010	2.580	18.590	.800	19.390	—	—

		10.524	-	10.524	.176	10.700	.724	11.248
19	East Taunton, .	33.686	5.345	39.031	1.669	40.700	-	39.031
20	Fitchburg & Leominster, .							
21	Gardner, Westminster & Fitchburg, .	15.524	-	15.524	.760	16.284	-	15.524
22	Haverhill & Amesbury, .	25.900	-	25.900	1.500	27.400	1.020	26.920
23	Haverhill & Plaistow, .	2.680	-	2.680	.080	2.760	-	2.680
24	Haverhill & Southern New Hampshire, .	7.840	-	7.840	.840	8.680	.050	7.890
25	Holyoke, .	56.048	8.131	64.179	4.669	68.848	.900	65.079
26	Interstate Consolidated, .	22.473	1.657	24.130	1.862	25.992	-	24.130
27	Lawrence & Methuen, .	12.520	-	12.520	.440	12.960	.220	12.740
28	Lexington & Boston, .	27.205	2.460	29.665	2.691	32.356	.745	30.037
29	Linwood, .	.750	-	.750	.040	.790	1.480 <sup>1</sup>	2.230
30	Lowell, Acton & Maynard, .	3.600	-	3.600	-	3.600	-	3.600
31	Lowell & Fitchburg, .	17.630	-	17.630	.180	17.810	-	17.630
32	Lowell & Pelham, .	3.170	-	3.170	.150	3.320	-	3.170
33	Marlborough & Westborough,* .	13.425	-	13.425	.675	14.100	-	13.425
34	Martha's Vineyard, .	1.100	-	1.100	.025	1.125	-	-
35	Medfield & Medway, .	11.009	-	11.009	.241	11.250	-	11.009
36	Middlesex & Boston, .	76.610	13.911	90.521	5.326	95.847	1.986	92.507
37	Milford, Attleborough & Woonsocket, .	28.239	.309	28.548	.926	29.474	-	28.548
38	Milford & Uxbridge, .	33.689	.991	34.680	1.226	35.906	.025	34.705
39	Mount Tom, .	.900	-	.900	.100	1.000	-	-
40	Nahant & Lynn, .	3.660	2.350	6.010	.350	6.360	-	6.010

<sup>1</sup> Owned by private parties.

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		DESCRIPTION OF RAILWAY (LENGTH IN MILES) — Concluded.						
		99. — Railway Line Owned.	100. — Second Main Track Owned.	101. — Total Main Track Owned.	102. — Sidings, Switches, etc., Owned.	103. — Total Track Owned.	104. — Leased Main Track and Trackage Rights.	105. — Total Main Track Operated.
41	New Bedford & Onset, . . . . .	37.587	3.654	41.241	2.878	44.119	—	41.241
42	Newtonville & Watertown, . . . . .	4.308	—	4.308	.357	4.665	—	—
43	Norfolk & Bristol, . . . . .	20.641	—	20.641	1.082	21.723	.293	20.934
44	Northampton, . . . . .	24.369	—	24.369	2.270	26.639	—	24.369
45	North End, . . . . .	4.995	—	4.995	.135	5.130	—	—
46	Norton & Taunton, . . . . .	29.220	—	29.220	.853	30.073	.907	19.831
47	Norwood, Canton & Sharon, . . . . .	6.073	—	6.073	.209	6.282	—	6.042
48	Oak Bluffs, . . . . .	5.350	—	5.350	.500	5.850	1.100	5.000
49	Old Colony, . . . . .	314.610	46.360	360.970	27.060	388.030	21.150	356.120
50	Plymouth & Sandwich, . . . . .	6.146	—	6.146	.213	6.359	—	6.146
51	Point Shirley, . . . . .	1.200	—	1.200	—	1.200	—	1.200
52	Providence & Fall River, . . . . .	11.983	—	11.983	.693	12.676	—	11.983
53	Shelburne Falls & Colrain, . . . . .	6.950	—	6.950	.480	7.430	—	6.950
54	Somerville, . . . . .	6.356	1.424	7.780	.253	8.033	—	—
55	Springfield, . . . . .	135.217	29.426	164.643	10.633	175.276	—	164.643
56	Springfield & Eastern,* . . . . .	40.522	1.169	41.691	2.590	44.281	—	—
57	Taunton & Pawtucket, . . . . .	15.978	.470	16.448	1.175	17.623	1.164	17.612
58	Templeton, . . . . .	17.870	—	17.870	—	17.870	—	17.870

59	Union, . . . . .	35,284	13,869	49,153	2,450	51,603	8,597	57,750
60	Ware & Brookfield, . . . . .	11,710	-	11,710	.410	12,120	-	11,710
61	Warren, Brookfield & Spencer, . . . . .	19,607	-	19,607	.491	20,098	-	19,607
62	Webster & Dudley, . . . . .	5,338	-	5,338	.350	5,688	-	-
63	West End, . . . . .	193,409	170,401	363,810	43,664	407,474	-	-
64	Winnisimmet, . . . . .	1,040	1,020	2,060	.130	2,190	-	-
65	Worcester & Blackstone Valley,* . . . . .	27,701	-	27,701	1,094	28,795	-	27,701
66	Worcester Consolidated, . . . . .	205,436	29,477	234,913	14,120	249,033	28,845	263,758
67	Worcester & Holden,* . . . . .	7,858	.059	7,919	.512	8,429	-	7,917
68	Worcester & Providence, . . . . .	-	-	-	-	-	-	-
69	Worcester & Shrewsbury R.R., . . . . .	2,700	-	2,700	.550	3,250	-	-
70	Worcester & Shrewsbury St. Ry., . . . . .	.425	-	.425	.034	.459	-	-
71	Worcester & Southbridge,* . . . . .	27,740	2,165	29,905	2,807	32,712	20,725	50,630
72	Worcester & Webster, . . . . .	15,387	-	15,387	.634	16,021	-	-
	Totals, <sup>1</sup> . . . . .	2,261,775	458,984	2,720,759	195,812	2,916,571	533,828	2,777,650

<sup>1</sup> Not including the companies marked \*, these companies having been consolidated during the year.

Tabulated Statements from Returns of Street Railway Companies — Continued.

	RAILWAY COMPANIES.	DESCRIPTION OF EQUIPMENT.						
		106. — Box Passenger Cars.	107. — Open Passenger Cars.	108. — Total Passenger Cars.	109. — Other Service Cars.	110. — Snow Plows and Sweepers.	111. — Other Vehicles.	112. — Electric Motors.
1	Amesbury & Hampton,	1	9	10	—	1	—	22
2	Athol & Orange,	8	5	13	1	—	1	26
3	Berkshire,	59	71	130	8	11	14	416
4	Blue Hill,	7	12	19	3	2	—	40
5	Boston & Chelsea,	—	—	—	—	—	—	—
6	Boston Elevated,	1,963	1,496	3,459	131	310	1,098	6,627
7	Boston & Northern,	597	654	1,251	67	171	176	3,052
8	Boston & Revere Electric,	—	—	—	—	—	—	—
9	Boston & Worcester,	48	31	79	5	9	4	259
10	Bristol & Norfolk,	3	3	6	1	1	—	12
11	Brockton & Plymouth,	11	15	26	4	4	1	73
12	Citizens' Electric,	12	18	30	2	3	5	65
13	Concord, Maynard & Hudson,	9	7	16	1	2	1	66
14	Connecticut Valley,	19	21	40	5	4	—	134
15	Conway Electric,	2	1	3	19	1	—	12
16	Dartmouth & Westport,*	12	12	24	11	4	1	170
17	Dedham & Franklin,	5	3	8	2	2	1	12
18	East Middlesex,	—	—	—	—	—	—	—



19	East Taunton, . . . . .	4	4	8	1	2	1	33
20	Fitchburg & Leominster, . . . . .	26	25	51	8	4	25	152
21	Gardner, Westminster & Fitchburg, . . . . .	9	12	21	3	2	1	48
22	Haverhill & Amesbury, . . . . .	19	36	55	3	7	7	70
23	Haverhill & Plaistow, . . . . .	-	-	-	-	-	-	-
24	Haverhill & Southern New Hampshire, . . . . .	5	6	11	-	-	-	44
25	Holyoke, . . . . .	53	75	128	41	10	6	285
26	Interstate Consolidated, . . . . .	-	-	-	-	-	-	-
27	Lawrence & Methuen, . . . . .	5	7	12	-	2	-	48
28	Lexington & Boston, . . . . .	23	38	61	3	7	9	170
29	Linwood, . . . . .	6	-	6	-	-	-	20
30	Lowell, Acton & Maynard, . . . . .	-	-	-	-	-	-	-
31	Lowell & Fitchburg, . . . . .	7	-	7	2	1	-	26
32	Lowell & Pelham, . . . . .	4	5	9	-	1	-	36
33	Marlborough & Westborough,* . . . . .	5	6	11	-	2	-	30
34	Martha's Vineyard, . . . . .	-	-	-	-	-	-	-
35	Medfield & Medway, . . . . .	2	3	5	-	2	-	10
36	Middlesex & Boston, . . . . .	93	111	204	10	19	27	441
37	Milford, Attleborough & Woonsocket, . . . . .	13	15	28	4	3	-	88
38	Milford & Uxbridge, . . . . .	25	20	45	4	8	2	130
39	Mount Tom, . . . . .	-	-	-	-	-	-	-
40	Nahant & Lynn, . . . . .	5	12	17	1	1	-	32

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		DESCRIPTION OF EQUIPMENT — Concluded.						
		106. — Box Passenger Cars.	107. — Open Passenger Cars.	108. — Total Passenger Cars.	109. — Other Service Cars.	110. — Snow Plows and Sweepers.	111. — Other Vehicles.	112. — Electric Motors.
41	New Bedford & Onset,	11	18	29	4	4	—	104
42	Newtonville & Watertown,	—	—	—	—	—	—	—
43	Norfolk & Bristol,	11	12	23	2	3	—	56
44	Northampton,	21	23	44	20	4	7	80
45	North End,	—	—	—	—	—	—	—
46	Norton & Taunton,	10	8	18	2	3	—	52
47	Norwood, Canton & Sharon,	4	3	7	—	1	—	14
48	Oak Bluffs,	—	6	6	2	—	1	8
49	Old Colony,	350	448	798	92	99	64	1,932
50	Plymouth & Sandwich,	2	2	4	—	—	—	8
51	Point Shirley,	2	1	3	1	1	—	2
52	Providence & Fall River,	9	10	19	4	3	1	60
53	Shelburne Falls & Colrain,	4	2	6	8	1	—	14
54	Somerville,	—	—	—	—	—	—	—
55	Springfield,	170	185	355	40	36	24	1,038
56	Springfield & Eastern,*	—	—	—	—	—	—	—
57	Taunton & Pawtucket,	6	8	14	—	1	—	42
58	Templeton,	7	8	15	2	2	—	32

59	Union,	.	.	.	.	.	83	116	199	21	14	14	455
60	Ware & Brookfield,	.	.	.	.	.	6	14	20	-	1	2	28
61	Warren, Brookfield & Spencer,	.	.	.	.	.	7	10	17	1	2	1	27
62	Webster & Dudley,	.	.	.	.	.	-	-	-	-	-	-	-
63	West End,	.	.	.	.	.	-	-	-	-	-	-	-
64	Winnistunnet,	.	.	.	.	.	-	-	-	-	-	-	-
65	Worcester & Blackstone Valley,*	.	.	.	.	.	14	15	29	1	4	1	98
66	Worcester Consolidated,	.	.	.	.	.	225	261	486	33	46	42	1,520
67	Worcester & Holden,*	.	.	.	.	.	3	4	7	2	1	-	28
68	Worcester & Providence,	.	.	.	.	.	-	-	-	-	-	-	-
69	Worcester & Shrewsbury R.R.,	.	.	.	.	.	-	-	-	-	-	-	-
70	Worcester & Shrewsbury St. Ry.,	.	.	.	.	.	-	-	-	-	-	-	-
71	Worcester & Southbridge,*	.	.	.	.	.	25	34	59	10	6	3	240
72	Worcester & Webster,	.	.	.	.	.	-	-	-	-	-	-	-
Totals, <sup>1</sup>							3,971	3,850	7,821	561	811	1,535	17,921

<sup>1</sup> Not including the companies marked \*, these companies having been consolidated during the year.

Tabulated Statements from Returns of Street Railway Companies — Continued.

		RAILWAY COMPANIES.	VOLUME OF TRAFFIC.						
			113. — Pas- senger Car Miles.	114. — Other Revenue Car Miles.	115. — Total Revenue Car Miles.	116. — Pas- senger Car Hours.	117. — Other Revenue Car Hours.	118. — Total Revenue Car Hours.	119. — Number of Employees.
1	Amesbury & Hampton,	.	129,400	—	129,400	9,243	—	9,243	18
2	Athol & Orange,	.	155,707	—	155,707	15,571	—	15,571	38
3	Berkshire,	.	2,892,893	4,303	2,897,196	239,889	3,927	243,816	448
4	Blue Hill,	.	375,897	—	375,897	35,270	—	35,270	70
5	Boston & Chelsea,	.	—	—	—	—	—	—	—
6	Boston Elevated,	.	54,418,891	228,305	54,647,196	5,116,476	24,120	5,140,596	9,883
7	Boston & Northern,	.	18,232,599	—	18,232,599	2,167,289	—	2,167,289	3,538
8	Boston & Revere Electric,	.	—	—	—	—	—	—	—
9	Boston & Worcester,	.	1,991,113	—	1,991,113	121,120	—	121,120	240
10	Bristol & Norfolk,	.	80,849	—	80,849	6,286	—	6,286	10
11	Brockton & Plymouth,	.	450,015	20,463	470,478	42,911	2,857	45,768	73
12	Citizens' Electric,	.	333,988	1,500	335,488	38,149	500	38,649	63
13	Concord, Maynard & Hudson,	.	221,450	—	221,450	16,110	—	16,110	40
14	Connecticut Valley,	.	795,138	—	795,138	71,159	—	71,159	138
15	Conway Electric,	.	14,820	27,900	42,720	1,647	3,000	4,647	10
16	Dartmouth & Westport,*	.	216,809	17,016	233,825	16,888	3,231	20,119	—
17	Dedham & Franklin,	.	132,238	—	132,238	14,334	—	14,334	16
18	East Middlesex,	.	—	—	—	—	—	—	—

19	East Taunton,	.	.	.	.	151,820	-	151,820	6,466	-	6,466	15
20	Fitchburg & Leominster,	.	.	.	.	1,083,068	12,953	1,096,021	116,767	2,821	119,588	315
21	Gardner, Westminster & Fitchburg,	.	.	.	.	259,460	7,853	267,313	27,324	1,864	29,188	43
22	Haverhill & Amesbury,	.	.	.	.	523,700	2,900	526,600	46,980	424	47,404	90
23	Haverhill & Plaistow,	.	.	.	.	67,400	-	67,400	5,991	-	5,991	8
24	Haverhill & Southern New Hampshire,	.	.	.	.	266,900	-	266,900	20,530	-	20,530	38
25	Holyoke,	.	.	.	.	1,992,942	50,301	2,043,243	203,290	6,889	210,179	365
26	Interstate Consolidated,	.	.	.	.	729,446	851	730,297	65,406	277	65,683	169
27	Lawrence & Methuen,	.	.	.	.	402,800	-	402,800	30,985	-	30,985	67
28	Lexington & Boston,	.	.	.	.	748,160	-	748,160	68,762	-	68,762	130
29	Linwood,	.	.	.	.	61,994	-	61,994	6,663	-	6,663	10
30	Lowell, Acton & Maynard,	.	.	.	.	46,639	-	46,639	6,218	-	6,218	4
31	Lowell & Fitchburg,	.	.	.	.	226,583	-	226,583	16,172	-	16,172	24
32	Lowell & Pelham,	.	.	.	.	58,200	-	58,200	4,590	-	4,590	9
33	Marlborough & Westborough,*	.	.	.	.	167,846	395	168,241	12,863	31	12,894	14
34	Martha's Vineyard,	.	.	.	.	-	-	-	-	-	-	-
35	Medfield & Medway,	.	.	.	.	149,909	-	149,909	14,040	-	14,040	18
36	Middlesex & Boston,	.	.	.	.	2,803,145	16,397	2,819,542	285,609	2,700	288,309	404
37	Milford, Attleborough & Woonsocket,	.	.	.	.	451,016	1,597	452,613	36,575	315	36,890	107
38	Milford & Uxbridge,	.	.	.	.	723,613	8,700	732,313	168,754	-	168,754	154
39	Mount Tom,	.	.	.	.	-	-	-	-	-	-	-
40	Nahant & Lynn,	.	.	.	.	137,912	-	137,912	12,707	-	12,707	40

Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		VOLUME OF TRAFFIC — Continued.						
		113. — Pas- senger Car Miles.	114. — Other Revenue Car Miles.	115. — Total Revenue Car Miles.	116. — Pas- senger Car Hours.	117. — Other Revenue Car Hours.	118. — Total Revenue Car Hours.	119. — Number of Employees.
41	New Bedford & Onset, . . . . .	481,835	23,683	505,518	37,061	3,667	40,728	153
42	Newtonville & Watertown, . . . . .	—	—	—	—	—	—	—
43	Norfolk & Bristol, . . . . .	460,744	365	461,109	44,700	—	44,700	50
44	Northampton, . . . . .	758,651	15,796	774,447	69,384	4,798	74,182	124
45	North End, . . . . .	—	—	—	—	—	—	—
46	Norton & Taunton, . . . . .	332,001	—	332,001	31,087	—	31,087	35
47	Norwood, Canton & Sharon, . . . . .	97,152	—	97,152	8,697	—	8,697	10
48	Oak Bluffs, . . . . .	20,777	—	20,777	4,473	—	4,473	15
49	Old Colony, . . . . .	10,746,529	155,710	10,902,239	1,269,843	31,414	1,301,257	2,080
50	Plymouth & Sandwich, . . . . .	45,604	—	45,604	3,799	—	3,799	7
51	Point Shirley, . . . . .	25,900	—	25,900	5,400	—	5,400	4
52	Providence & Fall River, . . . . .	196,258	31,985	228,243	12,385	3,672	16,057	23
53	Shelburne Falls & Colrain, . . . . .	60,424	—	60,424	6,656	—	6,656	20
54	Somerville, . . . . .	—	—	—	—	—	—	—
55	Springfield, . . . . .	6,950,024	37,462	6,987,486	705,038	6,675	711,713	921
56	Springfield & Eastern,* . . . . .	—	—	—	—	—	—	—
57	Taunton & Pawtucket, . . . . .	254,883	—	254,883	19,917	—	19,917	34
58	Templeton, . . . . .	250,695	—	250,695	25,737	—	25,737	34

59	Union, . . . . .	2,169,565	30,612	2,200,177	203,465	5,991	269,456	476
60	Ware & Brookfield, . . . . .	161,695	-	161,695	16,583	-	16,583	28
61	Warren, Brookfield & Spencer, . . . . .	319,720	-	319,720	31,530	-	31,530	45
62	Webster & Dudley, . . . . .	-	-	-	-	-	-	-
63	West End, . . . . .	-	-	-	-	-	-	-
64	Winnisimmet, . . . . .	-	-	-	-	-	-	-
65	Worcester & Blackstone Valley,* . . . . .	614,084	1,217	615,301	51,501	143	51,644	141
66	Worcester Consolidated, . . . . .	6,269,151	46,146	6,315,297	693,297	8,981	702,278	1,318
67	Worcester & Holden,* . . . . .	146,642	150	146,792	10,186	11	10,197	21
68	Worcester & Providence, . . . . .	-	-	-	-	-	-	-
69	Worcester & Shrewsbury R.R., . . . . .	-	-	-	-	-	-	-
70	Worcester & Shrewsbury St. Ry., . . . . .	-	-	-	-	-	-	-
71	Worcester & Southbridge,* . . . . .	1,054,270	3,558	1,057,828	85,693	483	86,176	187
72	Worcester & Webster, . . . . .	-	-	-	-	-	-	-
Totals, <sup>1</sup> . . . . .		122,910,964	748,118	123,659,082	12,465,466	118,791	12,584,257	21,972

<sup>1</sup> Not including in column 119 the companies marked \*, these companies having been consolidated during the year.

Tabulated Statements from Returns of Street Railway Companies — Continued.

	RAILWAY COMPANIES.	VOLUME OF TRAFFIC—Continued.			STOCKHOLDERS.		
		120. — Total Number of Pas- sengers carried Paying Rev- enue. <sup>1</sup>	121. — Number of Free Trans- fers for Passengers Carried.	122. — Average Number of Rev- enue Passengers per Mile of Main Track Operated. <sup>1</sup>	123. — Total Number.	124. — In Massachusetts.	125. — Amount of Stock held in Massachusetts.
1	Amesbury & Hampton,	516,379	—	61,916	6	5	\$500 00
2	Athol & Orange,	928,247	—	138,132	16	14	73,200 00
3	Berkshire,	14,370,795	729,660	134,204	9	7	1,300 00
4	Blue Hill,	1,488,968	44,276	80,528	56	54	293,000 00
5	Boston & Chelsea,	—	—	—	100	74	99,100 00
6	Boston Elevated,	305,098,665	198,314,129	709,602	4,701	4,191	17,829,900 00
7	Boston & Northern,	106,586,060	11,933,294	205,527	323	319	12,349,500 00
8	Boston & Revere Electric,	—	—	—	25	20	37,200 00
9	Boston & Worcester,	11,620,697	354,704	145,074	37	37	2,322,000 00
10	Bristol & Norfolk,	318,511	4,492	48,457	26	24	89,900 00
11	Brockton & Plymouth,	1,941,232	34,679	86,354	119	115	399,900 00
12	Citizens' Electric,	2,275,157	49,278	130,523	9	9	240,000 00
13	Concord, Maynard & Hudson,	942,232	—	64,691	65	63	199,200 00
14	Connecticut Valley,	3,620,459	70,293	80,693	238	213	440,100 00
15	Conway Electric,	60,921	—	10,308	102	93	94,000 00
16	Dartmouth & Westport,*	1,859,539	360,868	60,767	109	98	436,900 00
17	Dedham & Franklin,	505,375	—	55,664	8	7	74,900 00
18	East Middlesex,	—	—	—	116	106	265,800 00



19	East Taunton,	.	.	.	.	.	.	874,401	-	83,086	59	110,000 00
20	Fitchburg & Loominster,	.	.	.	.	.	.	5,940,780	1,021,742	152,206	116	437,200 00
21	Gardner, Westminster & Fitchburg,	.	.	.	.	.	.	1,368,702	-	88,166	67	184,000 00
22	Haverhill & Amesbury,	.	.	.	.	.	.	3,162,107	-	117,463	6	600 00
23	Haverhill & Plaistow,	.	.	.	.	.	.	412,854	-	154,050	5	500 00
24	Haverhill & Southern New Hampshire,	.	.	.	.	.	.	1,250,988	-	158,553	6	500 00
25	Holyoke,	.	.	.	.	.	.	10,673,686	1,055,150	164,011	271	969,700 00
26	Interstate Consolidated,	.	.	.	.	.	.	3,521,157	101,701	145,924	5	55,000 00
27	Lawrence & Methuen,	.	.	.	.	.	.	2,180,080	-	171,121	5	500 00
28	Lexington & Boston,	.	.	.	.	.	.	2,811,260	40,916	93,593	8	525,000 00
29	Linwood,	.	.	.	.	.	.	379,870	-	170,345	16	12,000 00
30	Lowell, Acton & Maynard,	.	.	.	.	.	.	168,374	439	46,770	42	35,000 00
31	Lowell & Fitchburg,	.	.	.	.	.	.	1,045,146	-	59,282	1	100 00
32	Lowell & Pelham,	.	.	.	.	.	.	302,611	-	95,460	6	600 00
33	Marlborough & Westborough,*	.	.	.	.	.	.	718,526	22,263	53,521	8	160,000 00
34	Martha's Vineyard,	.	.	.	.	.	.	-	-	-	6	8,000 00
35	Medfield & Medway,	.	.	.	.	.	.	355,058	5,600	32,251	9	60,000 00
36	Middlesex & Boston,	.	.	.	.	.	.	13,638,229	448,331	147,429	8	1,462,000 00
37	Milford, Attleborough & Woonsocket,	.	.	.	.	.	.	2,050,391	15,005	71,823	6	315,000 00
38	Milford & Uxbridge,	.	.	.	.	.	.	3,795,134	3,029	109,354	151	187,100 00
39	Mount Tom,	.	.	.	.	.	.	-	-	-	101	82,300 00
40	Nahant & Lynn,	.	.	.	.	.	.	888,602	79,339	147,854	42	100,000 00

\* Computed on the basis of five or six cent fares collected.

## Tabulated Statements from Returns of Street Railway Companies — Continued.

RAILWAY COMPANIES.		VOLUME OF TRAFFIC — Concluded.			STOCKHOLDERS — Concluded.		
		120. — Total Number of Passengers carried Paying Revenue. <sup>1</sup>	121. — Number of Free Transfers for Passengers Carried.	122. — Average Number of Revenue Passengers per Mile of Main Track Operated. <sup>1</sup>	123. — Total Number.	124. — In Massachusetts.	125. — Amount of Stock held in Massachusetts.
41	New Bedford & Onset, . . . . .	2,430,240	30,331	59,145	193	182	\$528,000 00
42	Newtonville & Watertown, . . . . .	—	—	—	19	19	50,000 00
43	Norfolk & Bristol, . . . . .	1,816,534	70,327	86,774	16	15	194,000 00
44	Northampton, . . . . .	3,666,513	179,682	150,458	216	167	607,000 00
45	North End, . . . . .	—	—	—	29	28	109,900 00
46	Norton & Taunton, . . . . .	1,217,980	9,773	61,417	73	72	237,000 00
47	Norwood, Canton & Sharon, . . . . .	197,973	—	32,766	9	9	62,500 00
48	Oak Bluffs, . . . . .	116,748	—	23,349	6	6	60,000 00
49	Old Colony, . . . . .	63,332,926	9,517,095	177,842	197	194	8,777,800 00
50	Plymouth & Sandwich, . . . . .	102,679	—	16,706	32	26	32,800 00
51	Point Shirley, . . . . .	92,360	—	76,966	16	16	25,000 00
52	Providence & Fall River, . . . . .	788,794	24,558	65,826	35	30	149,700 00
53	Shelburne Falls & Colrain, . . . . .	211,177	—	30,385	35	29	47,500 00
54	Somerville, . . . . .	—	—	—	5	5	153,000 00
55	Springfield, . . . . .	34,753,172	5,533,055	211,082	29	26	3,707,000 00
56	Springfield & Eastern,* . . . . .	—	—	—	20	16	898,800 00
57	Taunton & Pawtucket, . . . . .	1,023,269	2,831	58,101	8	5	50,200 00
58	Templeton, . . . . .	872,602	—	48,830	80	80	75,000 00

59	Union,	.	.	.	.	.	.	15,017,761	3,267,997	260,048	344	319	1,483,400 00
60	Ware & Brookfield,	.	.	.	.	.	.	554,703	-	49,370	7	7	100,000 00
61	Warren, Brookfield & Spencer,	.	.	.	.	.	.	919,348	-	40,888	17	14	130,300 00
62	Webster & Dudley,	.	.	.	.	.	.	-	-	-	10	3	300 00
63	West End,	.	.	.	.	.	.	-	-	-	8,831	7,686	16,938,500 00
64	Winnisummet,	.	.	.	.	.	.	-	-	-	35	33	49,800 00
65	Worcester & Blackstone Valley,*	.	.	.	.	.	.	3,381,545	349,867	122,073	8	8	362,000 00
66	Worcester Consolidated,	.	.	.	.	.	.	38,658,573	9,308,523	146,568	10	10	5,112,000 00
67	Worcester & Holden,*	.	.	.	.	.	.	800,434	2,145	101,103	6	6	150,000 00
68	Worcester & Providence,	.	.	.	.	.	.	-	-	-	18	18	30,000 00
69	Worcester & Shrewsbury R.R.,	.	.	.	.	.	.	-	-	-	6	6	36,700 00
70	Worcester & Shrewsbury St. Ry.,	.	.	.	.	.	.	-	-	-	6	6	20,000 00
71	Worcester & Southbridge,*	.	.	.	.	.	.	5,727,193	97,285	113,118	8	8	890,000 00
72	Worcester & Webster,	.	.	.	.	.	.	-	-	-	8	4	400 00
Totals, <sup>2</sup>									243,082,657	246,021	17,211	15,130	\$78,143,000 00

<sup>1</sup> Computed on the basis of five or six cent fares collected.<sup>2</sup> Not including in columns 123, 124 and 125 the companies marked \*, these companies having been consolidated during the year.

*Tabulated Statements from Returns of Street Railway Companies — Continued.*

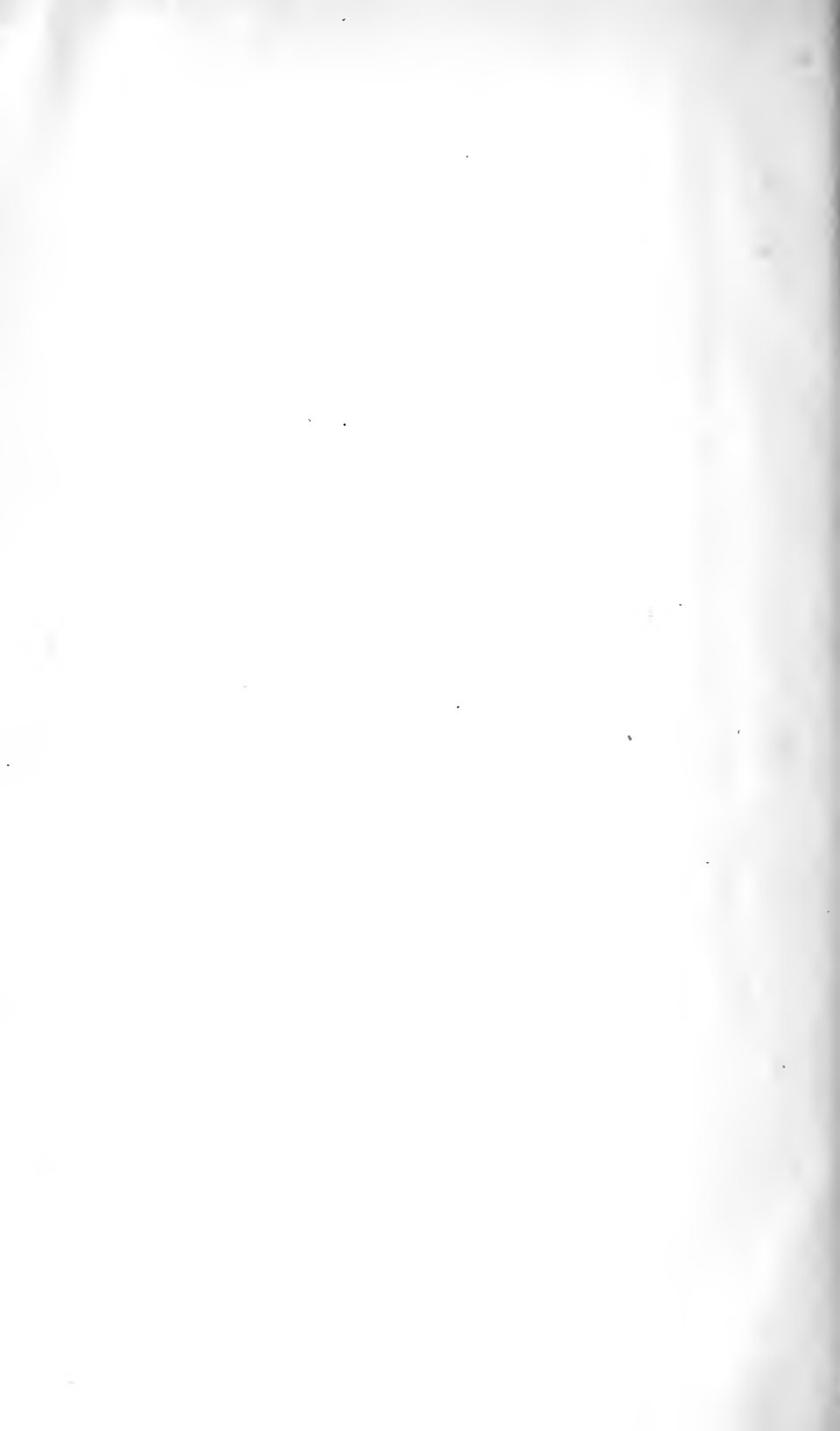
RAILWAY COMPANIES.		ACCIDENTS DURING THE YEAR ENDING JUNE 30, 1911.					
		126. — To Passengers.	127. — To Employees.	128. — To Other Persons.	129. — Fatal.	130. — Not Fatal.	131. — Total.
							132. — Total during Preceding Nine Months.
1	Anesbury & Hampton,	2	—	—	—	2	—
2	Athol and Orange, .	—	—	—	—	—	2
3	Berkshire, .	83	25	16	4	120	113
4	Blue Hill, .	5	1	4	—	10	4
5	Boston & Chelsea,	—	—	—	—	—	—
6	Boston Elevated,	2,562	144	772	38	3,440	2,259
7	Boston & Northern,	948	64	231	16	1,227	1,061
8	Boston & Revere Electric,	—	—	—	—	—	—
9	Boston & Worcester,	17	—	10	5	22	19
10	Bristol & Norfolk,	—	—	—	—	—	—
11	Brockton & Plymouth,	6	1	—	—	7	4
12	Citizens' Electric,	4	—	2	—	6	7
13	Concord, Maynard & Hudson,	—	—	—	—	—	1
14	Connecticut Valley,	20	2	—	1	21	13
15	Conway Electric,	—	—	—	—	—	—
16	Dartmouth & Westport,	1	—	—	—	1	5
17	Dedham & Franklin,	—	—	—	—	—	2
18	East Middlesex, .	—	—	—	—	—	—



Tabulated Statements from Returns of Street Railway Companies — Concluded:

RAILWAY COMPANIES.		ACCIDENTS DURING THE YEAR ENDING JUNE 30, 1911 — Concluded.					
		126. — To Passengers.	127. — To Employees.	128. — To Other Persons.	129. — Fatal.	130. — Not Fatal.	131. — Total.
							132. — Total during Preceding Nine Months.
41	New Bedford & Onset,	1	—	1	—	2	2
42	Newtonville & Watertown,	—	—	—	—	—	—
43	Norfolk & Bristol,	1	1	5	1	6	7
44	Northampton,	2	1	2	—	5	5
45	North End,	—	—	—	—	—	—
46	Norton & Taunton,	6	—	3	1	8	9
47	Norwood, Canton & Sharon,	—	—	—	—	—	—
48	Oak Bluffs,	—	—	—	—	—	—
49	Old Colony,	454	42	113	10	599	609
50	Plymouth & Sandwich,	—	—	—	—	—	—
51	Point Shirley,	—	—	—	—	—	—
52	Providence & Fall River,	3	3	—	—	6	6
53	Shelburne Falls & Colrain,	—	—	—	—	—	—
54	Somerville,	—	—	—	—	—	—
55	Springfield,	130	8	69	13	194	207
56	Springfield & Eastern,	—	—	—	—	—	—
57	Taunton & Pawtucket,	—	—	2	—	2	2
58	Templeton,	—	—	—	—	—	—
							130
							3

59	Union, . . . . .	56	6	24	3	83	86	40
60	Ware & Brookfield, . . . . .	-	-	-	-	-	-	2
61	Warren, Brookfield & Spencer, . . . . .	5	-	-	-	5	5	4
62	Webster & Dudley, . . . . .	-	-	-	-	-	-	-
63	West End, . . . . .	-	-	-	-	-	-	-
64	Winnimmet, . . . . .	-	-	-	-	-	-	-
65	Worcester & Blackstone Valley, . . . . .	22	1	18	4	37	41	47
66	Worcester Consolidated, . . . . .	573	13	120	3	703	706	934
67	Worcester & Holden, . . . . .	8	-	3	-	11	11	4
68	Worcester & Providence, . . . . .	-	-	-	-	-	-	-
69	Worcester & Shrewsbury R.R., . . . . .	-	-	-	-	-	-	-
70	Worcester & Shrewsbury St. Ry., . . . . .	-	-	-	-	-	-	-
71	Worcester & Southbridge, . . . . .	25	1	13	3	36	39	36
72	Worcester & Webster, . . . . .	-	-	-	-	-	-	-
Totals, . . . . .		5,116	364	1,483	106	6,857	6,963	5,458





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COMPARATIVE STATEMENTS

COMPILED FROM

Returns of Street Railway Companies.

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# COMPARISON OF STREET RAILWAY RETURNS FOR THE NINE MONTHS 1910 AND YEAR 1911.

MILEAGE, ASSETS, ETC.	Nine Months, 1910.	Year, 1911.	Increase.	Decrease.
<b>Description of Road Owned.</b>	<b>Miles.</b>	<b>Miles.</b>	<b>Miles.</b>	<b>Miles.</b>
Length of railway line, . . . .	2,246.247	2,261.775	15.528	-
of second track, . . . .	456.485	458.984	2.499	-
<i>Total length of main line, . . .</i>	<i>2,702.732</i>	<i>2,720.759</i>	<i>18.027</i>	<i>-</i>
Length of side track, . . . .	188.347	195.812	7.465	-
<i>Total reckoned as single track, . .</i>	<i>2,891.079<sup>1</sup></i>	<i>2,916.571</i>	<i>25.492</i>	<i>-</i>
<i>Total main track operated, . . .</i>	<i>2,762.055<sup>1,2</sup></i>	<i>2,777.650<sup>2</sup></i>	<i>15.595</i>	<i>-</i>
in Massachusetts, . . . .	2,726.525 <sup>1,2</sup>	2,741.850 <sup>2</sup>	15.325	-
<b>Assets.</b>				
Construction, . . . .	\$87,795,493 03	\$98,533,614 46	\$10,738,121 43	-
Equipment, . . . .	31,498,714 72	31,996,379 32	497,664 60	-
Land and buildings, . . . .	41,989,353 04	42,198,687 80	209,334 76	-
Other permanent property, . . . .	5,563,138 78	2,014,195 48	-	\$3,548,943 30
Cash and current assets, . . . .	8,785,107 85	8,231,929 13	-	553,178 72
Miscellaneous assets, . . . .	9,824,380 29	8,816,701 97	-	1,007,678 32
<i>Gross assets, . . . .</i>	<i>\$185,456,187 71</i>	<i>\$191,791,508 16</i>	<i>\$6,335,320 45</i>	<i>-</i>
<b>Liabilities.</b>				
Capital stock, common, . . . .	\$75,658,465 00	\$77,523,575 00	\$1,865,110 00	-
preferred, . . . .	8,686,060 00	9,115,600 00	429,000 00	-
Total capital stock, . . . .	84,345,065 00	86,639,175 00	2,294,110 00	-
Funded debt, . . . .	67,762,000 00	71,508,700 00	3,746,700 00	-
Real estate mortgages, . . . .	65,398 60	5,300 00	-	\$60,098 60
Current liabilities, . . . .	19,162,839 28	17,882,304 85	-	1,280,534 43
Accrued liabilities, . . . .	4,135,186 45	4,332,614 21	197,427 76	-
<i>Total indebtedness, . . . .</i>	<i>91,125,424 33</i>	<i>93,728,919 06</i>	<i>2,603,494 73</i>	<i>-</i>
<i>Gross liabilities, . . . .</i>	<i>\$175,470,489 33</i>	<i>\$180,368,094 06</i>	<i>\$4,897,604 73</i>	<i>-</i>
<b>Profit and loss balance (surplus),<sup>3</sup></b>	9,985,698 38	11,423,414 10	1,437,715 72	-
<i>Total as per balance sheet, . . .</i>	<i>\$185,456,187 71</i>	<i>\$191,791,508 16</i>	<i>\$6,335,320 45</i>	<i>-</i>
<b>Income.</b>				
From passengers, . . . .	\$23,209,299 66	\$33,802,724 55	The increase or decrease of these items is not given, as the returns for 1910 are for nine months, and those for 1911 are for a year.	
mails and merchandise, . . . .	243,600 07	337,463 25		
tolls, advertising, etc., . . . .	579,336 44	896,808 89		
<i>Gross earnings from operation, . .</i>	<i>\$24,032,236 17</i>	<i>\$35,036,996 69</i>		
Rents from lease of railway, . . . .	1,072,422 44	120,388 71		
Income from other sources, . . . .	224,653 35	1,886,639 60		
<i>Total income, . . . .</i>	<i>\$25,329,311 96</i>	<i>\$37,044,025 00</i>		

<sup>1</sup> Not including 3.195 miles of main line and .103 of a mile of side track of the Rhode Island of Rhode Island.

<sup>2</sup> Includes leased track and trackage rights.

<sup>3</sup> Includes "sinking and other reserve funds" which in 1910 was \$3,362,403.41 and in 1911 is \$4,059,630.16, and also "net premium on sales of capital stock and bonds."

# COMPARISON OF STREET RAILWAY RETURNS FOR THE NINE MONTHS 1910, ETC. — Concluded.

EXPENDITURES, ETC.	Nine Months, 1910.	Year, 1911.	Increase.	Decrease.
<b>Expenditures.</b>				
Operating expenses, . . . . .	\$16,191,892 80	\$22,895,803 50		
Taxes, . . . . .	1,694,084 23	2,464,686 42		
Interest on debt and loans, . . . . .	2,714,699 56	3,683,094 91		
Rents of leased railways, . . . . .	1,251,756 19	1,691,390 13		
Other deductions from income, . . . . .	876,504 62	760,570 32		
Dividends paid, . . . . .	2,767,314 99	4,788,907 24		
<i>Total expenditures, . . . . .</i>	<i>\$25,496,252 39</i>	<i>\$36,284,452 52</i>		
<b>Condensed Exhibit for the Year.</b>				
Total operating revenues, . . . . .	\$24,032,236 17	\$35,036,996 69		
Operating expenses, . . . . .	16,191,892 80	22,895,803 50		
<i>Net operating revenue, . . . . .</i>	<i>\$7,840,343 37</i>	<i>\$12,141,193 19</i>		
Income from all other sources, . . . . .	1,297,075 79	2,007,028 31		
<i>Gross income less operating expenses, . . . . .</i>	<i>9,137,419 16</i>	<i>14,148,221 50</i>		
Taxes, interest and other deductions, . . . . .	6,537,044 60	8,599,741 78		
<i>Net divisible income, . . . . .</i>	<i>\$2,600,374 56</i>	<i>\$5,548,479 72</i>		
Amount of dividends declared, . . . . .	2,767,314 99	4,788,907 24		
<i>Surplus for the year, . . . . .</i>	<i>166,940 43d</i>	<i>759,572 48</i>		
Percentage of dividends earned, . . . . .	3.08	6.40		
of dividends declared, . . . . .	3.28	5.52		
<b>Volume of Traffic.</b>				
Total passengers carried, <sup>1</sup> . . . . .	469,330,784	683,362,717		
Average number per mile of main track operated, <sup>1</sup> . . . . .	169,921	246,021		
Total car miles run, . . . . .	87,712,572	123,659,082		
Average number of employees, . . . . .	18,839	21,972		
<b>Equipment.</b>				
Passenger cars, box, . . . . .	3,884	3,971	87	-
open, . . . . .	3,785	3,850	65	-
<i>Total passenger cars, . . . . .</i>	<i>7,669</i>	<i>7,821</i>	<i>152</i>	<i>-</i>
Other cars and vehicles, . . . . .	2,809	2,907	38	-
Electric motors, . . . . .	17,536	17,921	335	-
Stock held in Massachusetts, . . . . .	\$77,831,040 00	\$78,143,000 00	\$311,960 00	-
Total number of stockholders, . . . . .	16,821	17,211	390	-
in Massachusetts, . . . . .	14,842	15,130	288	-

The increase or decrease of these items is not given, as the  
returns for 1910 are for nine months, and those for 1911 are  
for a year.

d Deficit.

<sup>1</sup> Computed on the basis of five or six cent fares collected.













